

SECTION 3.3
PARTICIPATING INDEPENDENT LABORATORIES



MEDICARE

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Section 3.3: Participating Independent Laboratories

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Foreword

WITH THE enactment of the health insurance program for the aged (Medicare), it became possible to organize a continuing information system to report the use of health care services by older Americans. Since Medicare began, one of the basic tasks has been to process and pay claims for covered medical services submitted by or on behalf of the almost 19.8 million persons entitled to hospital insurance benefits and the 18.8 million persons enrolled for supplementary medical insurance benefits. From this operation come data on the amount, the kind, and the cost of such services used by the aged.

This report is one in a series of publications designed to disseminate such data on a regular basis. It provides detailed statistical information on independent laboratories participating under Medicare. Other reports in the series will present the number and characteristics of participating hospitals, home health agencies, extended care facilities, of the insured population, and the utilization of medical care services. The reports are intended to give a comprehensive account of the amounts reimbursed under the program, the kinds of services paid for, and the variations in utilization and reimbursement by age, race, and sex of the beneficiary, as well as his place of

geographic residence. Such data can provide new insights into the patterns of medical care for persons aged 65 and over. A fuller understanding of present practice can contribute to improved health services not only for the aged but for the general population of the United States as well.

Many individuals in the Social Security Administration have assisted with the development of this series. The preparation of these reports is a major function of the ORS Division of Health Insurance Studies under the supervision of Howard West, director, and Aaron Krute, deputy director, and involving a majority of its staff. Important contributions for the tabulation and presentation of the statistical content of this report were made by Frank L. Kirby, Charles G. Scott, and Harvey L. Engbretson of the Statistical Processing and Procedures Branch of that division. Text preparation was the responsibility of Wayne Callahan of the Provider Statistics Branch. Special acknowledgments for publication services are made to the Division of Operating Facilities in the Office of Administration, and for tabulating services to the Division of Health Insurance Statistical Data of the Bureau of Data Processing.

IDA C. MERRIAM,
Assistant Commissioner for Research and Statistics.

SEPTEMBER, 1971

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THIS PUBLICATION is a section of a statistical report series produced from Medicare program records. Presented on a calendar year basis, describing services rendered in the year, the series includes sections on enrollment, characteristics of providers, inpatient care in hospitals and extended care facilities, outpatient hospital services, home health services, physicians' and other medical services, and overall summaries.

The primary objective of these reports is to provide data required to measure and evaluate program operation and effectiveness. Benefit payment operations furnish information about the amount and kind of hospital and medical care services used by persons aged 65 and over, as well as the expenditures for such services. The applications by hospitals, extended care facilities, home health agencies, and independent laboratories to participate in the program provide data on the characteristics of such providers of services. The claim number assigned to each individual serves as the link between the program services utilized and the demographic characteristics of each individual recorded in the health insurance entitlement master file.

The data-collection system has two inherent characteristics that determine the scope, detail, and flexibility of the available data. First, data are collected and maintained on an individual basis so that the beneficiary and his medical experience under the program form the basic unit. Second, records for each bill paid under the program and, for a sample of beneficiaries, records of diagnoses and surgical procedures are maintained on a centralized basis. Except for intermediary operating statistics such as those relating to workloads, costs, and the like, all program statistics are centrally prepared.

THE BASIC RECORDS

The statistical system is based on five related computer-tape records: the health insurance entitlement master file, provider record, hospital insurance (Part A) utilization record, medical insurance (Part B) payment record, and the record containing information from medical insurance bills for a 5-percent sample of supplementary medical insurance enrollees.

THE HEALTH INSURANCE ENTITLEMENT MASTER FILE

The health insurance entitlement master file identifies each aged person eligible for health insurance benefits and indicates whether he is entitled to hospital benefits, to supplementary medical insurance benefits, or to both of these benefits.

This record is used to create a health insurance card that is sent to each insured person. The card contains the individual's claim number (the number used for OASDI or railroad retirement programs). It indicates the entitlement of the individual for the two parts of the Medicare program.

The entitlement record provides the population data for each part of the program and therefore serves as the base for the computation of a variety of utilization rates, limited only by its demographic content.

PROVIDER RECORD

Every hospital, home health agency, extended care facility, and independent laboratory must apply for participation in the hospital insurance program in order to be reimbursed for services provided. Data included on the application forms have been recorded in the central provider record and are updated as facilities are recertified periodically, as new ones apply for participation, or as some leave the program. When the information in this provider file is combined with utilization data, it serves to relate the characteristics of facilities and agencies that provide care to the kinds and amounts of service used by persons insured under Medicare.

UTILIZATION RECORD FOR HOSPITAL INSURANCE

The administration of the hospital insurance program requires that two items of information be known about each person at the time of his admission to a hospital—his entitlement under the program and the extent to which he has used the benefits available to him under the "benefit period" concept.

When the patient is admitted to a hospital, the admission section of the inpatient hospital admission and billing form is completed by the hospital and forwarded through its intermediary to the Social Security Administration for recording in the central record. As soon as the record is checked, normally in less than 24 hours, the intermediary is informed of the patient's benefit status and of the number of days remaining during the "benefit period."

This information is then forwarded to the hospital. At discharge, the hospital completes the billing section of the form and sends it to the intermediary for payment. When approval for payment has been made, the intermediary forwards the claim to the Social Se-

of the Medicare Program

curity Administration for inclusion in the central record.

As part of this process, information on diagnoses and surgical procedures are coded for a 20-percent sample of beneficiaries based on specific combinations of digits in the health insurance claim number. Copies of admission and billing forms are handled in a comparable manner by home health agencies and extended care facilities. The outpatient billing form is also transmitted to the Social Security Administration for recording in the central record after the bill is approved for payment by the intermediary.

All the information on utilization experience in hospital and extended care facilities that is needed to administer the "benefit period" provision is recorded in the central record. This information includes stays in certain nonparticipating institutions that meet the definition of a hospital or extended care facility under the law, and days of care not covered or reimbursable under the program.

Each admission and billing form contains both the beneficiary's claim number and the provider's identification number. The resulting tape record can be readily matched to the beneficiary files and the provider files. By this process, a statistical tape record is created for the sample of insured persons that contains all the available information needed for tabulation from the three files related to Part A utilization.

PAYMENT FOR MEDICAL INSURANCE

Payment or reimbursement under the SMI program is made only after receipt by the carriers (intermediaries involved in Part B of the Medicare program) of bills having allowed charges exceeding \$50 during a calendar year period.

For the insured population, carriers need to know from a central source that the deductible has been met; thereafter, during the remainder of the calendar year, the only additional information required from the Social Security Administration for reimbursement or payment purposes is whether the person is still enrolled under the SMI program.

For administration and operation of the program, the Social Security Administration must have accurate and complete information on the amounts paid by the carriers for physician services and for other services and supplies under this part of the program. To meet these needs, carriers furnish a payment record consisting of tape, punched card, or other machine-readable record of each bill paid. A "bill" is defined as a request for payment from or on behalf of a beneficiary as the result of services provided by a

single physician or supplier.

The payment record also contains selected items of information needed to supply an efficient basis for drawing samples of the bills. These items provide a sampling frame that may be used to draw additional samples designed to obtain specific information not furnished reliably by the basic sample of enrolled persons under the medical insurance program.

THE MEDICAL INSURANCE SAMPLE

Although the payment record provides a rapid method for summarizing payment data and a sampling frame for efficiently drawing additional samples of bills, it does not provide specific data on diagnoses, procedures, and related charges.

Basic statistics on the utilization of physician and other services covered under the supplementary medical insurance program are derived from bills paid by intermediaries to or on behalf of a continuous 5-percent sample of all enrolled persons. Intermediaries have been given specific combinations of digits of the health insurance claim number to be used in selecting the 5-percent sample, which is a sub-sample of the 20-percent sample used for hospital insurance program data.

Bills are submitted either directly on an SSA request for payment form, or on the SSA form in combination with the physician's billing form. Both methods are designed to provide information on the date and place of each service, the procedure carried out or service provided, the condition treated (diagnosis), and the physician's or supplier's charge for the specific service.

All of the bills of persons in the 5-percent sample to or for whom payment is made under the program, including those used to meet the annual \$50 deductible, are included in the sample and coded. However, data are not available through these procedures for persons in the sample who do not meet the \$50 deductible. Such data are collected by means of the Current Medicare Survey, with data made available in a separate report series.¹

For hospital-based physicians who have authorized the provider to collect the fee for their services, the provider billing for patient services by physicians form is used. This form is completed for each patient. It includes descriptive information on the date and place of each service, the diagnoses, procedures, and the charges. These bills are received centrally for the 5-percent sample of persons enrolled for supplementary medical insurance.

¹ Jack Scharff, "Current Medicare Survey: The Medical Insurance Sample," *Social Security Bulletin*, April 1967.

Independent Laboratories Participating in the Program

TITLE XVIII of the Social Security Act, introduced as part of the 1965 amendments, provides health insurance protection for the aged. To implement the law, two separate but complementary programs were established. The first of these, the hospital insurance (HI) program, provides protection against the cost of hospital and related post-hospital care. The second, termed supplementary medical insurance (SMI) provides coverage of physicians' services and a number of other health items and services not included under the HI program. Among the major benefits provided under the SMI program are reimbursement for diagnostic laboratory tests performed in an independent clinical laboratory.

A laboratory operating under the direction of a physician primarily for the performance of diagnostic laboratory services for other physicians is considered to be an independent laboratory. An independent laboratory must also be independent both of an attending physician's office and of a hospital that participates in the Medicare program. However, a laboratory maintained by a physician for performing diagnostic tests in connection with his own practice is not considered to be an independent laboratory.

In order to participate in the Medicare program, a laboratory must be approved by the Secretary of Health, Education, and Welfare as meeting the specific requirements for participation under the program.¹ Section 1861(a) of the Social Security Act stipulates that, where State or local laws provide for licensing laboratories, the laboratory be licensed in accordance with such law or be approved by the agency of the State or locality responsible for such licensure.

¹ "Conditions for Coverage of Services of Independent Laboratories" (HIR-13), Social Security Administration.

Characteristics of the Independent Laboratories

GEOGRAPHIC DISTRIBUTION OF LABORATORIES

There were 2,714 independent laboratories approved for participation under Medicare during calendar year 1968, a net gain of 45 over the number that participated in 1967.² The number of approved laboratories varied considerably by region and State (table A). Forty-six percent of the approved laboratories were concentrated in two geographic areas: 723 or 27 percent were in the Pacific States, and 513 or 19 percent were in the Middle Atlantic States. The East North Central States had 394 (15 percent of the total) while the remaining two-fifths were scattered throughout the country.

California with 609 approved laboratories (22 percent) had the largest number of any State, followed by New York with 257 (9 percent). Other States with more than 100 approved laboratories included Florida, Illinois, New Jersey, Ohio, Pennsylvania, and Texas. These eight States accounted for 1,693, or 62 percent of all approved laboratories. Idaho and New Hampshire, on the other hand, each had only one approved independent laboratory.

TRAINING OF LABORATORY DIRECTORS

Physicians who were pathologists served as directors in 36 percent of the approved laboratories; physicians who were not pathologists served as directors in 26 percent; while nonphysicians directed 38 percent (table A).

² *Medicare: Health Insurance for the Aged, 1967: Section 3.3 Participating Independent Laboratories*, Social Security Administration Office of Research and Statistics (Washington, D.C.: U.S. Government Printing Office, 1971)

Table A.—Number and percent of approved independent laboratories by training of laboratory director, division, and State, 1968

Division and State	All laboratories	Pathologist	Other physician	Non-physician
Percent of total				
All areas.....	2,714	36	26	38
United States.....	2,660	37	26	37
New England.....	166	16	14	69
Maine.....	2	—	50	50
New Hampshire.....	1	—	—	100
Vermont.....	4	—	50	50
Massachusetts.....	91	21	18	62
Rhode Island.....	17	6	12	82
Connecticut.....	51	14	6	80
Middle Atlantic.....	513	28	13	58
New York.....	257	33	14	53
New Jersey.....	129	19	16	65
Pennsylvania.....	127	28	10	61
East North Central.....	394	30	25	45
Ohio.....	106	26	28	45
Indiana.....	32	59	16	25
Illinois.....	159	20	30	50
Michigan.....	79	34	18	48
Wisconsin.....	18	78	6	17
West North Central.....	145	63	18	19
Minnesota.....	12	75	25	—
Iowa.....	16	75	13	13
Missouri.....	59	59	14	27
North Dakota.....	10	60	40	—
South Dakota.....	4	100	—	—
Nebraska.....	19	79	11	11
Kansas.....	25	44	28	28
South Atlantic.....	222	42	23	35
Delaware.....	4	75	—	25
Maryland.....	33	48	27	24
District of Columbia.....	6	83	17	—
Virginia.....	23	78	—	22
West Virginia.....	8	13	38	50
North Carolina.....	11	55	45	—
South Carolina.....	6	83	17	—
Georgia.....	20	85	15	—
Florida.....	111	20	26	54
East South Central.....	80	49	31	20
Kentucky.....	32	34	56	9
Tennessee.....	27	44	15	41
Alabama.....	12	92	8	—
Mississippi.....	9	56	22	22
West South Central.....	268	41	35	24
Arkansas.....	14	57	43	—
Louisiana.....	20	50	45	5
Oklahoma.....	39	36	28	36
Texas.....	195	39	35	25
Mountain.....	149	44	21	36
Montana.....	8	50	25	25
Idaho.....	1	100	—	—
Wyoming.....	3	100	—	—
Colorado.....	34	38	9	53
New Mexico.....	23	30	40	30
Arizona.....	54	44	20	35
Utah.....	13	38	15	46
Nevada.....	13	62	31	8
Pacific.....	723	39	38	23
Washington.....	65	58	18	23
Oregon.....	31	65	6	29
California.....	609	35	42	23
Alaska.....	2	50	50	—
Hawaii.....	16	50	44	6
Outlying areas.....	54	11	20	69
Guam.....	—	—	—	—
Puerto Rico.....	53	9	21	70
Virgin Islands.....	1	100	—	—
Other outlying areas.....	—	—	—	—

Among the States there is considerable variation in the professional training of laboratory directors. In the West North Central States, 63 percent of the approved laboratories had pathologists serving as their directors. Forty-nine percent of the directors in the East South Central States were pathologists. New England and the Middle Atlantic States, on the other hand, had only 16 and 28 percent, respectively, directed by pathologists.

The proportion of laboratories directed by non-physicians also varies considerably on a geographic basis. In New England, for example, 69 percent were directed by nonphysicians, as were 58 percent in the Middle Atlantic States. In contrast, only about one-fifth of the directors in the West North Central States and the East South Central States were not physicians.³

APPROVED REIMBURSABLE TESTS OR PROCEDURES

Laboratories are certified to be reimbursed only for those laboratory tests and procedures within the specialties or subspecialties which the laboratory director or supervisors are qualified to perform. Thus, not all approved laboratories may perform all of the tests in Medicare's seven categories of reimbursable tests and procedures. Table B shows that 27 percent of the 2,714 laboratories were approved for all seven types. More than nine out of every 10 laboratories were approved for clinical chemistry and hematology. Tissue pathology and exfoliative cytology were approved for the fewest laboratories—32 percent and 35 percent, respectively.

Over two-thirds (68 percent) of the laboratories directed by pathologists were approved under the program to perform all seven diagnostic procedures. Only 7 percent of the laboratories with directors who were physicians but not pathologists, and 2 percent of the nonphysician-directed laboratories were approved for the performance of all these procedures.

The specific kind of procedures that laboratories are approved to perform also varied with the professional training of their directors. A large percentage of the pathologist-directed laboratories were approved for tissue pathology—79 percent, compared with only 8 percent of the laboratories directed by physicians not pathologists, and 3 percent of those directed by nonphysicians. Approximately the same ratios existed for laboratories approved for exfoliative cytology.

There is also geographic variation in the proportion of laboratories approved for various procedures (table C). Over 60 percent of all participating laboratories in the West North Central States were approved for all seven types of tests, compared to less than 20 percent in the New England and Middle Atlantic States. The proportion of laboratories approved for all clinical tests among the various geographic divisions followed closely that proportion of laboratories whose directors were pathologists.

³ Nonphysician laboratory directors may include persons holding doctoral degrees from accredited institutions with a major in clinical, physical, or biological science together with either certification by a national accrediting board in one of the laboratory specialties, or 4 or more years of general clinical laboratory training and experience after graduation. For a detailed description of these requirements and certain permissible exceptions, see Social Security Administration, "Conditions for Coverage . . .," *ibid.*, section 405.1312.

Table B.—Number and percent of approved independent laboratories, by training of laboratory director and type of procedure approved, 1968

Type of procedure approved	All laboratories		Pathologist		Other physician		Nonphysician	
	Number	Percent of total	Number	Percent of total	Number	Percent of total	Number	Percent of total
All laboratories.....	2,714	100	977	100	705	100	1,032	100
Microbiology.....	2,157	80	807	83	553	78	797	77
Serology.....	1,742	64	775	79	357	51	610	59
Clinical chemistry.....	2,502	92	862	88	661	94	979	95
Hematology.....	2,513	93	874	89	657	93	982	95
Immunohematology.....	1,455	54	788	81	382	54	285	28
Tissue pathology.....	859	32	775	79	58	8	26	3
Exfoliative cytology.....	939	35	820	84	84	12	35	3
All procedures.....	734	27	667	68	47	7	20	2

Table C.—Number and percent of approved independent laboratories, by type of procedure approved and division, 1968

Division	All laboratories	Microbiology	Serology	Clinical chemistry	Hematology	Immunohematology	Tissue pathology	Exfoliative cytology	All procedures
		Percent of total							
All areas.....	2,714	80	64	92	93	54	32	35	27
New England.....	166	67	58	96	96	46	10	16	8
Middle Atlantic.....	513	68	68	90	91	38	23	26	16
East North Central.....	394	70	84	92	93	49	30	34	26
West North Central.....	145	88	72	94	93	73	64	67	61
South Atlantic.....	222	81	46	91	92	47	37	43	33
East South Central.....	80	80	65	89	90	48	48	50	41
West South Central.....	268	92	52	95	96	65	45	47	43
Mountain.....	149	81	58	89	90	55	39	40	36
Pacific.....	723	87	66	94	94	66	29	31	24
Outlying areas.....	54	87	13	91	83	9	11	13	2

NUMBER OF TECHNICAL STAFF

Medicare regulations for independent laboratory certification also define the duties and qualifications of a technical laboratory staff (other than those of the director).⁴ Each laboratory submits an application form "Request for Approval" (Form SSA-1517, see figure 1) requesting approval to participate in Medicare. The application provides information on the number of technical personnel (expressed in full-time equivalents), which information can be used as a relative indicator of the size of the laboratory.⁵ Such "size" information, relating the number of technical staff to the number of approved laboratories in each State, is shown in the general tables.

Nationally, approved laboratories employed almost 12,000 technical personnel (full-time equivalents), with an average of 4.4 for each approved laboratory (table D). The technical staffs for all laboratories averaged about one physician to every five nonphysicians. Almost two-thirds (62 percent) of the physicians were employed in laboratories directed by pathologists. Although these laboratories comprised

only 36 percent of all the approved laboratories, they employed 57 percent of the technical staff.

Table D.—Number and percentage distribution of approved independent laboratories by number of technical staff, and training of laboratory director, 1968

Training of laboratory director	All laboratories	Technical staff ¹		
		Total	Physician	Non-physician
		Number		
All areas.....	2,714	11,987.0	2,027.3	9,959.7
Pathologist.....	977	6,874.4	1,257.0	5,617.5
Other physician.....	705	2,808.8	599.0	2,209.8
Nonphysician.....	1,032	2,303.8	171.4	2,132.4
		Percentage distribution		
All areas.....	100	100	100	100
Pathologist.....	36	57	62	56
Other physician.....	26	23	30	22
Nonphysician.....	38	19	8	21

¹ Includes all technical personnel other than directors. Expressed in full-time equivalents.

The State distribution shows that the average number of technical staff per laboratory exceeded 10 only in Alabama, Alaska, the District of Columbia, Nebraska, North Dakota, and South Carolina. At the other extreme, Maine, New Jersey, Vermont, and West Virginia averaged two technical employees per laboratory.

The continental regions with the smallest number of laboratories approved (the North Central States and the South) had the largest number of technical employees per laboratory.

⁴ Social Security Administration, "Conditions for Coverage . . .," *ibid.*, section 405.1315.

⁵ To arrive at full-time equivalents, divide the total number of hours worked by all employees in each classification in the week prior to the week of filing the request by the number of hours in the standard work week.

Table E.—Number of approved independent laboratories, by training of laboratory director, number of technical staff, and level of certification, by division, 1968

Level of certification and division	All laboratories	Training of laboratory director			Technical staff ¹			
		Pathologist	Other physician	Non-physician	Number	Average per laboratory	Physician	Non-physician
All areas.....	2,714	977	705	1,032	11,987.0	4.4	2,027.3	9,959.7
No significant deficiencies.....	2,278	865	585	828	10,287.7	4.5	1,776.4	8,511.3
With correctible deficiencies.....	436	112	120	204	1,699.3	3.9	250.9	1,448.4
New England.....	166	27	24	115	559.3	3.4	97.0	462.3
No significant deficiencies.....	114	17	17	80	448.5	3.9	86.0	362.6
With correctible deficiencies.....	52	10	7	35	110.7	2.1	11.0	99.7
Middle Atlantic.....	513	146	69	298	1,975.5	3.9	162.6	1,812.9
No significant deficiencies.....	394	123	53	218	1,563.9	4.0	127.6	1,436.3
With correctible deficiencies.....	119	23	16	80	411.6	3.5	35.0	376.6
East North Central.....	394	120	98	176	1,550.5	3.9	193.9	1,356.6
No significant deficiencies.....	356	110	87	159	1,375.2	3.9	162.2	1,213.1
With correctible deficiencies.....	38	10	11	17	175.3	4.6	31.8	143.5
West North Central.....	145	92	26	27	1,064.8	7.3	233.0	831.8
No significant deficiencies.....	137	91	23	23	1,044.3	7.6	224.0	820.3
With correctible deficiencies.....	8	1	3	4	20.5	2.6	9.0	11.5
South Atlantic.....	222	93	51	78	1,315.3	5.9	248.3	1,067.0
No significant deficiencies.....	202	82	46	74	1,252.0	6.2	235.0	1,017.0
With correctible deficiencies.....	20	11	5	4	63.3	3.2	13.3	50.0
East South Central.....	80	39	25	16	431.6	5.4	78.0	353.6
No significant deficiencies.....	74	36	25	13	395.6	5.3	75.0	320.6
With correctible deficiencies.....	6	3	—	3	36.0	6.0	3.0	33.0
West South Central.....	268	109	95	64	1,441.6	5.4	318.6	1,123.0
No significant deficiencies.....	244	101	84	59	1,343.6	5.5	293.6	1,050.0
With correctible deficiencies.....	24	8	11	5	98.0	4.1	25.0	73.0
Mountain.....	149	65	31	53	560.5	3.8	117.0	443.5
No significant deficiencies.....	137	61	25	51	523.0	3.8	104.0	419.0
With correctible deficiencies.....	12	4	6	2	37.5	3.1	13.0	24.5
Pacific.....	723	280	275	168	2,943.1	4.1	550.0	2,393.2
No significant deficiencies.....	567	238	215	114	2,197.7	3.9	440.1	1,757.6
With correctible deficiencies.....	156	42	60	54	745.4	4.8	109.9	635.6
Outlying areas.....	54	6	11	37	144.9	2.7	29.0	115.9
No significant deficiencies.....	53	6	10	37	143.9	2.7	29.0	114.9
With correctible deficiencies.....	1	—	1	—	1.0	1.0	—	1.0

¹ Includes all technical personnel other than directors. Expressed in full-time equivalents.

LEVEL OF CERTIFICATION

Independent laboratories must meet specific requirements in order for their services to qualify for reimbursement under the program. Established in the interest of health and safety, these requirements are essential to maintaining quality care and providing adequate services and facilities. The test is whether there is substantial compliance with each of the Medicare conditions for participation.⁶

Under these conditions, independent laboratories can be approved for participation in the program at the following levels of certification:

1. With no significant deficiencies
2. With correctible deficiencies

Of the 2,714 laboratories approved in 1968, 2,278 or 84 percent were found to have no significant deficiencies (table E). Of the 436 laboratories approved with correctible deficiencies, 275 or 63 percent were located in the Middle Atlantic and Pacific States, the two geographical divisions with the largest number of certified laboratories. In six of the nine divisions shown in table E, 10 percent or less of the certified laboratories had correctible deficiencies. The excep-

tions were New England, the Middle Atlantic States, and the Pacific States where the proportion of laboratories with deficiencies ranged from 22 to 31 percent of those certified. Approximately nine out of every 10 staff members or 86 percent were employed in laboratories found to have no significant deficiencies.

Conditions of Participation

The following material is from the Code of Federal Regulations, Title 20, Chapter III, Part 405, "Conditions for Coverage of Services of Independent Laboratories" (HIR-13), Social Security Administration.

Definition of an independent laboratory.—As noted earlier, an independent laboratory performing diagnostic tests is one which is independent both of the attending physician's office and of a hospital that participates in the program. A facility is not an independent laboratory if it is located in a hospital participating in the Medicare program or, if outside such a hospital, it is operated by the hospital or its medical staff and serves the hospital's patients. A laboratory directed by a physician and located outside of a hospital is considered to meet the definition when the facility is operated pri-

⁶ Social Security Administration, "Conditions for Coverage . . .," *ibid.*, section 405.1305.

Figure 1.

**REQUEST FOR APPROVAL OF INDEPENDENT LABORATORY
UNDER THE HEALTH INSURANCE FOR THE AGED PROGRAM**

All independent laboratories desiring to establish the coverage of their services under the Health Insurance Program should complete this form and return it to the State agency that is handling the certification process. If a return envelope is not provided, the name and address of the State agency may be obtained from the nearest Social Security Administration district office.

The following laboratories should not file this form:

Laboratories in participating hospitals or those operated by or under the supervision of a participating hospital or its organized medical staff; laboratories maintained by physicians in connection with their individual or group practice, except where the physician(s) holds himself out to the general public, and/or other physicians as being available primarily for the performance of diagnostic x-ray and/or other laboratory services.

Form Approved
Budget Bureau No. 72-R731

DO NOT WRITE IN THIS SPACE					
ID					
SC					
SMSA					
DO					
DATE CERTIFIED					
CERTIFICATION					

I. Identifying Information	NAME OF LABORATORY		STREET ADDRESS		
	CITY, COUNTY, AND STATE		ZIP CODE	TELEPHONE NUMBER (Including area code)	
	NAME OF DIRECTOR		PROFESSIONAL QUALIFICATIONS (See instructions) 1. ☐ PATHOLOGIST 3. ☐ MD (other) 2. ☐ RADIOLOGIST 4. ☐ OTHER (Attach description of qualifications)		

II. Licensure	A. ☐ LICENSED, APPROVED, OR REGISTERED AS A LABORATORY BY A STATE OR LOCAL GOVERNMENT AGENCY. (Name of Agency)	LICENSE EFFECTIVE		B. ☐ NO LICENSE APPROVAL OR REGISTRATION REQUIRED
		BEGINNING DATE	THRU DATE	

III. Laboratory Tests or Procedures (Check all applicable)	A. CLINICAL TESTS OR PROCEDURES				B. RADIOLOGY PROCEDURES	
	1 ☐ Microbiology 2 ☐ Serology 3 ☐ Clinical Chemistry 4 ☐ Hematology 5 ☐ Immunohematology 6 ☐ Tissue Pathology	7 ☐ Exfoliative Cytology 8 ☐ Electrocardiograph 9 ☐ Basal Metabolic Rate 10 ☐ Electroencephalograph 11 ☐ Other (Specify)	1 ☐ X-Ray, Diagnostic 2 ☐ X-Ray, Therapeutic 3 ☐ Radioisotope 4 ☐ Other (Specify)			

IV. Type of Ownership or Control (Check one)	1 ☐ Private	3 ☐ City	5 ☐ City-County
	2 ☐ State	4 ☐ County	6 ☐ Other (Specify)

V. Number of Personnel (Full-Time Equivalents)	A. NUMBER OF PHYSICIANS AND/OR SUPERVISORS (Do not include director)										
	1. PATHOLOGISTS			2. RADIOLOGISTS		3. OTHER M.D.'S		4. P.H.D.			
	CLINICAL	ANATOMICAL	BOTH								
	5. D. SC.			6. M.S./M.A.		7. B.S./B.A.		8. OTHER			
	B. NUMBER OF TECHNOLOGISTS (Exclude director and supervisors)										
	1. CLINICAL		2. RADIOLOGIC		3. NUCLEAR MEDICAL						
B.S./B.A. (or higher)		OTHER		B.S./B.A. (or higher)		OTHER		B.S./B.A. (or higher)		OTHER	
C. NUMBER OF CLINICAL LABORATORY TECHNICIANS											
1. COLLEGE-60 SEMESTER HOURS OR MORE				2. COLLEGE-OTHER		3. HIGH SCHOOL		4. OTHER			

SIGNATURE OF AUTHORIZED OFFICIAL		TITLE		DATE	
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Figure 2.



DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
SOCIAL SECURITY ADMINISTRATION

Form Approved.
Budget Bureau No. 72-R725

CERTIFICATION AND TRANSMITTAL

TO BE COMPLETED BY STATE AGENCY

1. NAME AND ADDRESS OF FACILITY		2. TYPE OF FACILITY (a) ☐ JCAH General Hospital (b) ☐ Non-JCAH General Hospital (c) ☐ Psych. Hospital (d) ☐ TB Hospital (e) ☐ ECF (f) ☐ HHA (g) ☐ HHA (Psych.) (h) ☐ Independent Lab.																																															
3. TO: BHI Regional Representative Regional Office,		4. DATE OF APPLICATION	5. CERTIFICATION ☐ INITIAL ☐ RECERTIFICATION	6. STATE																																													
7. PURSUANT TO PROVISIONS OF SEC. 1864 OF THE SOCIAL SECURITY ACT, AND UPON CONSIDERATION OF ALL FACTS, THE FACILITY IS CERTIFIED AS: (a) ☐ In substantial compliance with the conditions of participation (with no significant deficiencies) (b) ☐ In substantial compliance with the conditions of participation (with correctable deficiencies) (c) ☐ Meeting the conditions for special certification (limited access) (d) ☐ Not (or no longer) in compliance with conditions of participation																																																	
8. SUPPLEMENTAL INFORMATION ON HOSPITALS AND ECF'S NOT IN COMPLIANCE (a) ☐ Facility is in conformance with 1861 (e) (1) (Definition of hospital) (b) ☐ Facility is in conformance with 1861 (j) (1) (Definition of ECF) (c) ☐ Hospital is in conformance with 1861 (e) (1-5) and (7) (Eligible for emergency services)																																																	
9. ☐ JCAH ACCREDITATION VERIFIED	10. RECOMM. (RE-SURVEY DATE)	11. CONDITIONS OF PARTICIPATION WITH MAJOR DEFICIENCIES (Circle) (Complete when items 7b, 7c, or 7d are checked) <table style="width: 100%; text-align: center;"> <tr> <td>I</td><td>II</td><td>III</td><td>IV</td><td>V</td><td>VI</td><td>VII</td><td>VIII</td><td>IX</td><td>X</td><td>XI</td><td>XII</td><td>XIII</td><td>XIV</td><td>XV</td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>XVI</td><td>XVII</td><td>XVIII</td><td>XIX</td><td>XX</td><td>XXI</td><td>XXII</td><td>XXIII</td><td>XXIV</td><td>XXV</td><td></td><td></td><td></td><td></td><td></td> </tr> </table>			I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV																XVI	XVII	XVIII	XIX	XX	XXI	XXII	XXIII	XXIV	XXV					
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV																																			
XVI	XVII	XVIII	XIX	XX	XXI	XXII	XXIII	XXIV	XXV																																								
12. EVIDENCE AND REASONING (Include results of consultation)																																																	

☐ CONT. ON ATTACHED SHEET

13. PREPARED BY	14. DATE	15. REVIEWED BY	16. DATE
TITLE		TITLE	

TO BE COMPLETED BY REGIONAL OFFICE

17. DETERMINATION OF ELIGIBILITY (a) ☐ Facility is eligible to participate (b) ☐ Facility is not eligible to participate		18. FACILITY IS IN COMPLIANCE WITH TITLE VI OF CIVIL RIGHTS ACT ☐
19. REGIONAL OFFICE REVIEW ACTION (a) ☐ Approved SA Certification No change (b) ☐ Following consultation with SA, original certification of compliance changed to non-compliance (c) ☐ Following consultation with SA, original certification of non-compliance changed to compliance		
20. REMARKS		

21. PHS REVIEWER (where applicable)	22. DATE	23. DETERMINATION APPROVED	24. DATE

TO: BHI
 Division of Methods and Procedures
 Baltimore, Maryland 21235

FORM SSA-1539 (2-66)

marily for the performance of diagnostic tests for *other* physicians. A laboratory maintained by a physician for performing diagnostic tests primarily for his *own* patients would be exempt from the conditions, even if the laboratory does diagnostic tests on referral from other physicians. Diagnostic tests furnished by physicians working outside of a hospital and whose primary practice is directly attending patients, even though conducted partly through diagnostic procedures, are considered physicians' services rather than clinical laboratory services.

Certification of independent laboratories.—Independent laboratories that wish to participate under the supplementary medical insurance part of the Medicare program must apply for and establish their eligibility to do so. The independent laboratory must demonstrate that it meets the specific statutory requirements. As a further condition, the statute requires that the independent laboratory meet such standards as the Secretary finds necessary to assure the health and safety of individuals for whom these tests are performed.

The law makes provision for designated State health agencies, or other State agencies, to assist the Secretary in determining compliance with the conditions for coverage of services of independent laboratories. The designated State agencies certify to the Secretary those laboratories which they find meet the conditions. Services provided in a laboratory that is determined by the Secretary to be in substantial compliance with the conditions relating to health and safety and which meet the statutory licensure requirement would be reimbursable under the medical insurance program.

Initial certification by a State agency that an independent laboratory is in compliance with the conditions of participation is good for a period of 1 year from the date of certification. The certification remains in effect until such time as notice of revision is given. State agencies may resurvey laboratories to ascertain continued compliance and may, at any time, certify to the Secretary of Health, Education, and Welfare that a laboratory is no longer in compliance.

Source of the Data

Each independent laboratory desiring to establish coverage of its services under Medicare submits a completed "Request for Approval" (Form SSA-1517, figure 1) through the State certification agency and the regional office of the Social Security Administration to the central office. The data on this form, and that on the "Certification and Transmittal" (Form SSA-1539, figure 2), are the sources of the information shown in the general tables. The types of clinical tests or procedures that each laboratory is

approved to perform are noted by the State agency surveyor in item 12 of the Certification and Transmittal form.

Upon receipt of these forms in the central office, the information describing the characteristics of the independent laboratory is entered into a master provider of services file for storage and retrieval purposes. The detailed information about each laboratory recorded in the statistical tapes includes such items as the State and county in which the laboratory is located, professional qualification of the director, types of clinical tests that each laboratory is approved to perform, and the number of technical personnel employed. This record is updated as laboratories are periodically recertified, or as new laboratories apply and are approved for participation, or as some leave the program. In addition, laboratories can request that they be certified eligible to perform additional tests at any time; conversely, laboratories can be found ineligible to perform tests for which they had earlier been found eligible.

Independent laboratories may perform other clinical or radiological procedures (item III, Form SSA-1517, figure 1) not included as covered services of independent laboratories under the Medicare program. This information was requested for program evaluation purposes only and is not shown in this report.

Reimbursable Tests and Procedures

Payment can be made for the seven classes of laboratory tests and procedures listed below:

Microbiology.—Identification of micro-organisms that cause disease in human beings.

Serology.—Examination of the sera (liquid) component of blood, to determine whether antibodies of certain diseases identifiable through blood analysis are present.

Clinical chemistry.—Examination of the chemical properties of specimens (usually blood) to determine the presence of abnormal substances or to determine pathological amounts of "normal" components of the human organism.

Hematology.—Examination of the cellular structures of the blood and bone marrow to identify and classify such diseases as anemias, leukemias, and blood-clotting disorders.

Immunohematology.—Examination of immune bodies in blood by (a) blood group typing, (b) Rh studies, and (c) cross-matching of blood for transfusions.

Tissue pathology.—Examination of abnormal characteristics of human tissue; for example, detection of cancer by the use of biopsy, etc. Tissue is analyzed using both gross and microscopic procedures.

Exfoliative cytology.—Examination of cells which detach themselves from the linings of passages in the body.

Provisions of the Law

THE HEALTH insurance program for the aged, commonly called Medicare, was enacted on July 30, 1965, as Title XVIII of the Social Security Act, and became effective on July 1, 1966. The program, a part of the 1965 amendments (Public Law 89-97), makes available two separate but coordinated insurance coverages—hospital insurance, covering nearly all persons aged 65 and over, and supplementary medical insurance, covering those persons in this age group who enroll voluntarily and pay the premium. Changes in the program, effective in 1968, were incorporated in the 1967 amendments to the Social Security Act (Public Law 90-248) enacted on January 2, 1968.

Hospital Insurance Program

The hospital insurance program (Part A of Medicare) pays for a large portion of the costs of hospital and related post-hospital services. It is financed on a self-supporting basis through a tax on a portion of current earnings, paid by employees, employers, and self-employed persons. The proceeds of this tax are placed in the Hospital Insurance Trust Fund, from which reimbursements for benefits and administrative expenses incurred under the program are paid. The trust fund is reimbursed from general tax revenues for the costs of providing coverages for persons who qualify for hospital insurance but who are not eligible for monthly social security or railroad retirement benefits.

BENEFITS

Inpatient hospital benefits.—The program covers the cost of covered services in a participating hospital for up to 90 days in a “benefit period” (a period beginning with the first day of hospitalization and ending 60 days after discharge from a hospital or a skilled nursing home). Full payment is made for the first 60 days of hospitalization after a deductible of \$40 has been paid. For each of the remaining 30 days in the benefit period, the patient pays a coinsurance amount of \$10 a day. Each hospital insurance beneficiary also has a “lifetime reserve” of 60 additional days, subject to a copayment of \$20 a day. These additional days can be used at the patient’s option

whenever the 90 days covered in a benefit period are exhausted. The program also provides benefits for emergency services rendered in a nonparticipating hospital. Each nonparticipating hospital providing emergency services elects whether to bill the program or to charge its patients directly. If they bill the program, they are reimbursed on the basis of reasonable costs of covered services rendered. If they bill the patient, he pays the bill and submits the itemized bill to SSA for reimbursement. The reimbursement paid is 60 percent of reasonable charges for room and board and 80 percent of the charges for ancillary services.

Inpatient tuberculosis and psychiatric hospital services are also covered. However, there is a lifetime limit of 190 days of care in a psychiatric hospital. Where an individual is a patient in a participating psychiatric hospital at the time he becomes entitled to hospital insurance, the number of days he was such an inpatient in the 150-day period immediately prior to his eligibility are deducted from his days of entitlement in that benefit period, but not from the lifetime limitation.

Covered hospital services include hospital room and board in accommodations containing from two to four beds, nursing services except for private-duty nursing, drugs and biologicals, and all those services ordinarily furnished by a hospital to its inpatients. Coverage under the hospital insurance program does not include the services of physicians (including radiologists, anesthesiologists, pathologists, and psychiatrists) except for those services provided by interns or residents in training under approved teaching programs in a hospital.

The cost of the first three pints of blood (or equivalent amounts of packed red blood cells) furnished a patient during a benefit period is a deductible amount unless the patient arranges for replacement. Charges for any additional blood are covered under the program.

Outpatient hospital diagnostic benefits.—These benefits cover the costs of tests and related services that are ordinarily furnished by a participating hospital to its outpatients for the purpose of diagnostic study. Such services are covered subject to a \$20 deductible and 20-percent coinsurance for services furnished the beneficiary by the same hospital during a

20-day period. Beginning April 1, 1968, all outpatient hospital benefits are covered by the Supplementary Medical Insurance program and are no longer subject to these limitations.

Post-hospital home health care benefits.—These benefits cover the cost of visiting nurse services and related home health services for as many as 100 visits for up to a year following the patient's most recent discharge from a hospital or participating extended care facility, provided he has been confined for at least 3 consecutive days in a hospital. A home health plan must be developed by a physician and implemented within 14 days after the patient's discharge from the hospital or extended care facility. The home health care must be for further treatment of a condition for which he received services as an inpatient in the hospital or extended care facility.

Post-hospital extended care facility benefits.—The program pays for the reasonable cost of all covered inpatient services in participating extended care facilities for up to 100 days of such care in any benefit period, following discharge from a hospital after a stay of 3 consecutive days or more, and admission to an extended care facility within 14 days of discharge. Full payment is made for the first 20 days. For each of the remaining 80 days, the patient pays a coinsurance amount of \$5 a day.

Supplementary Medical Insurance Program

The supplementary medical insurance program (Part B of Medicare) provides coverage of physicians' services, outpatient hospital services (beginning April 1, 1968), additional home health services, other medical services and supplies, and outpatient physical therapy services furnished by qualified providers (beginning July 1, 1968). Individuals 65 years of age and over may enroll in the program regardless of whether they are eligible for social security retirement benefits. Monthly premiums paid by the individual are matched by the Federal Government and paid into the Supplementary Medical Insurance Trust Fund, which reimburses carriers for benefits and administrative expenses incurred under the program.

BENEFITS

The SMI program pays for 80 percent of the allowed charges for covered physician services and other medical services (or 80 percent of reasonable cost) after the patient has met a deductible of \$50 during a calendar year. However, payment for outpatient psychiatric physician services is limited to the lesser of \$250 or 50 percent of the allowed charges in any year after the \$50 deductible has been met. The sum and percentage are derived from the statutory provision which permits an incurred expense for out-of-hospital treatment of mental illness of only \$312.50 or 62.5 percent of actual expenses in a calendar year. Since only 80 percent of allowed

charges can be reimbursed the effective maximum becomes \$250.

To preclude the possibility of having to meet a deductible twice in a short period of time, a "carry-over" provision is applied. Accordingly, covered expenses that are incurred in the last quarter of the year and counted toward the deductible in that year are also credited toward the deductible for the following year. However, after March 31, 1968, the provisions concerning the deductible and the coinsurance do not apply to the services of radiologists and pathologists furnished to hospital inpatients.

Covered under the program are such benefits as physicians' services, including home, hospital and office visits; services and supplies, including drugs and biologicals that cannot be self-administered, that are furnished as a part of a physician's professional service, most commonly in his office, and either rendered without charge or included in the physician's bills; diagnostic X-ray tests, diagnostic laboratory tests, and other diagnostic tests; X-ray; radium, and radioactive isotope therapy, including materials and the services of technicians; surgical dressings, splints, casts, and other devices used for reduction of fractures and dislocations; purchase or rental of durable medical equipment, including iron lungs, oxygen tents, hospital beds, and wheelchairs used in the patient's home (including an institution used as his home); ambulance service in cases where the use of other methods of transportation is contraindicated by the individual's condition; prosthetic devices (other than dental) that replace all or part of an internal organ, including replacement of such devices; leg, arm, back, and neck braces, and artificial legs, arms, eyes, including replacement if required because of a change in the patient's physical condition; and 100 home health visits during a calendar year—these visits being independent of those provided under the hospital insurance program.

Also covered are hospital services, incident to physicians' services rendered to outpatients, including services beginning April 1, 1968 which were previously covered under the hospital insurance program, and outpatient physical therapy services beginning July 1, 1968.

Eligibility

The hospital insurance program.—Almost all persons aged 65 and over are eligible for benefits under the hospital insurance program. Included are those persons in this age group who are entitled to monthly social security cash benefits or payments from the railroad retirement system, regardless of whether they have applied for these cash benefits. During the period under consideration, a person could apply for hospital insurance protection even though he did not qualify for either social security cash benefits or a railroad retirement annuity if he had attained age 65 before 1968, or after 1967 with not less than 3

quarters of social security coverage, whenever acquired, for each calendar year elapsing after 1966 and before the year in which he had attained age 65. However, hospital insurance could not go into effect until the individual attained age 65. These classes of individuals were "deemed insured" under a special transitional provision.

Federal employees who retired from the Federal service after July 1, 1960, and who had the opportunity to be covered under the Federal Employees Health Benefits act of 1959, are ineligible for hospital insurance benefits under the transitional provisions. Also ineligible are aliens with less than 5 years of continuous residence in the United States, and those convicted of crimes against the security of the United States.

Hospital insurance protection can be retroactive for as many as 12 months before the month an individual files his application for entitlement. For example, an individual may apply 11 months after he attains age 65 and still be entitled to benefits from the month he attained age 65.

Supplementary medical insurance.—Persons entitled to benefits under the hospital insurance program (Part A), retired Federal employees, and persons not eligible for hospital insurance under the transitional provisions may voluntarily participate in the SMI program.

Enrollment.—Individuals may enroll in the SMI program only during specified periods—the initial and the general enrollment periods. The initial enrollment period begins with the third month preceding the one in which an individual attains age 65 and ends 3 months after the month of attainment, a total period of 7 months. If he enrolls during the 3 months prior to the month in which he attains age 65, his coverage is effective with the month in which he attains age 65; if he enrolls during the month he attains age 65, his coverage begins the following month; if he enrolls in any of the 3 months after he attains age 65, his coverage begins from 2 to 3 months after enrollment, depending on how long he waited before enrolling.

A general enrollment period was set between October 1, 1967 and March 31, 1968 for those who did not enroll in the initial enrollment period. A person who enrolls during a general enrollment period may receive benefits starting on the first of July following the general enrollment period. An eligible individual must enroll within 3 years after the close of his initial enrollment period or within 3 years after termination of prior enrollment.

An initial general enrollment period was set up at the beginning of the program for people who had attained age 65 before March 1, 1966. This enrollment period began September 1, 1965, and ended on May 31, 1966, for coverage to begin on July 1, 1966.

A State may enroll otherwise eligible individuals who receive cash payments under public assistance programs if the State requests such a State-Federal

enrollment agreement to be established and pays the necessary premiums.

Enrollment terminates with the beginning of the month following the month of death. Up to April 1, 1968, railroad retirement beneficiaries and individuals entitled to monthly cash social security benefits could terminate their enrollment voluntarily by notifying the Social Security Administration in writing during a general enrollment period of the desire to withdraw from the program. Under the 1967 amendments effective April 1, 1968, beneficiaries may give notice of withdrawal at any time and their coverage will be terminated at the close of the following calendar quarter. Other enrolled persons may terminate their coverage by withholding payment of premiums or by notifying the Social Security Administration in writing of the desire to withdraw from the program. The enrollee is provided a 90-day grace period for the payment of overdue premiums after which coverage is automatically terminated. An individual who previously has terminated his enrollment may re-enroll only in a general enrollment period beginning within 3 years of the date his previous enrollment had terminated. Re-enrollment, however, is allowed only once.

Financing the Program

Hospital Insurance.—The hospital insurance program is financed on a long-range, self-supporting basis through a separate schedule of increasing tax rates on the first \$7,800 of earnings in employment covered under the Social Security Act. The same tax rate applies to employees, employers, and self-employed persons. This rate was 0.35 percent in 1966, 0.50 percent for 1967, 0.60 for 1968-1972, and is scheduled to increase until it is 0.90 percent in 1987 and thereafter. The proceeds of this tax and that collected from the railroad retirement system are placed in a Hospital Insurance Trust Fund from which reimbursements for all benefits and administrative expenses incurred under the hospital insurance program are paid. The Hospital Insurance Trust Fund is reimbursed from general tax revenues for the cost of providing coverage for the almost 2½ million persons who qualify for hospital insurance but who are not entitled to monthly social security or railroad retirement benefits, that is, those "deemed insured."

Supplementary Medical Insurance.—Premiums are paid into the Federal Supplementary Medical Insurance Trust Fund by those persons enrolled for supplementary medical insurance, (or on their behalf) and a matching amount is paid from general revenues by the Federal government.

The premiums of persons receiving social security cash benefits, railroad retirement, or Federal civil service annuities are deducted from their monthly benefit checks. Persons not receiving monthly benefits are billed quarterly for premiums by the Social

Security Administration or Railroad Retirement Board and have a 90-day grace period in which to make payment. Premiums may be paid for as long as a year in advance, and for individuals financially unable to make quarterly payments, arrangements can be made for monthly payments.

The premium rate of the supplementary medical insurance program may be adjusted annually if medical costs rise. The law requires that the rate be set at an amount that will generate income to the fund sufficient to cover benefit payments and administrative costs incurred during the year. The monthly premium was \$3 for each month beginning with July 1966 and ending with March 1968; and \$4 a month beginning April 1968.

Under the 1967 amendments, States are permitted to enter into agreements with the Secretary, based on a request made before January 1, 1970, to buy in—that is, to pay the medical insurance premiums—for public assistance recipients aged 65 or over who were receiving money payments under an approved public assistance plan and for all aged persons eligible to receive medical assistance under an approved Title XIX plan.

Administration of the Program

Hospital Insurance.—Under the hospital insurance plan, groups or associations of providers, on behalf of their members, may nominate a national, State, or other public or private agency or organization to serve as intermediary in the claims process. A member of an association is free, however to receive payment from an approved intermediary other than its association's nominee, if approved by the Secretary and agreeable to the intermediary selected. In addition, a provider may deal directly with the Social Security Administration.

The Secretary may enter into an agreement with a nominated organization if he finds this to be consistent with effective and efficient administration of the hospital insurance program. The intermediary makes payments to providers for covered items and services on the basis of reasonable cost determinations and assists in the application of safeguards against unnecessary utilization of covered services. The agreement may also call for (1) furnishing consultative services to assist providers to establish and maintain necessary fiscal records and otherwise qualify as providers of services, (2) serving as a center for communicating with providers, and (3) making audits of provider records. Generally speaking, the Social Security Administration utilizes the services of the hospital insurance intermediary in making payments for home health and outpatient hospital services covered under medical insurance.

Payment may be made for a beneficiary for covered emergency inpatient hospital services or covered emergency outpatient hospital services where the hospital is not a participating facility and agrees not

to charge the beneficiary for covered services. Such a hospital may be outside the United States if it is more accessible than the nearest hospital in the United States adequately equipped to treat the patient.

Requests for payment for covered services must be signed by the beneficiary (or someone for him, if he is unable to do so). Payments are made on the basis of reasonable costs for these services to participating providers of services, that is, hospitals, extended-care facilities, and home health agencies, who have been certified for participation.

In some instances, hospitals may bill for physician services rendered to inpatients. In these cases, interim payment is made by the Part A intermediary. Depending on the nature of the billing, funds are transferred from the SMI trust fund to the HI trust fund to cover the cost of these services, or funds are paid directly from the SMI trust fund.

The intermediary selected by the provider reviews the claims for payment and pays the provider. Actual payment is made on the basis of an interim rate established between the provider and the intermediary. Final settlement based on each provider's operating year is made on the basis of a cost report submitted by the provider, and subject to an independent audit.

No payments can be made to Federal providers of services except for emergency services, unless this provider serves as a community institution. In addition, payment cannot be made to a provider for those services it is obligated to render at public expense under Federal law or contract.

Supplementary Medical Insurance.—Under the medical insurance program, the Secretary of Health, Education, and Welfare may enter into contracts with carriers for the performance of specified administrative functions. The carriers' principal function is to determine whether charges are allowable (reasonable) and to make payment.

The carrier selected by the Secretary of Health, Education, and Welfare to serve as an intermediary determines the allowed charges for bills submitted for each medical care service covered by the program and pays 80 percent of this amount after the \$50 deductible has been met.

The allowed charge for the service may be paid to the patient, or the patient may assign the bill for collection to the physician or other supplier of the service, if he is willing to accept assignment. In the former situation, the patient submits an itemized bill to the carrier and is reimbursed; in the latter, the physician or other supplier submits the bill and is reimbursed. When the payment is made directly to the physician (or supplier) on assignment, the allowed or reasonable charge determined by the carrier is the total charge. In both situations, the patient is responsible for the first \$50 of the charges for covered services he receives during the year and the amount of the bill over 80 percent of the allowed charges.

The law instructs the carrier to consider the following criteria in determining the "allowed" charge:

- (1) the customary charge for the service generally made by the physician or other person furnishing such services; and
- (2) the prevailing charge in the locality by other physicians and suppliers for similar services.

The law also specifies that the "allowed" charge cannot be higher than the charge applicable for the similar service rendered under comparable circumstances to the carriers' own policy holders or subscribers.

Carriers also have the authority and responsibility to determine, in a given case, whether a claim is for a covered service and to deny claims for noncovered or excluded items or services. In addition, carriers are to assist in the application of safeguards against unnecessary utilization of services furnished eligible individuals.

Most services covered by the medical insurance program are rendered on a fee-for-service basis.

However, services furnished under group practice prepayment plans are normally rendered in return for predetermined premium payments. In recognition of the need for special adaptation of the Medicare payment procedure for services rendered by group practice prepayment plans, the law provides that an organization which furnishes medical and other health services (or arranges for their availability) on a prepayment basis, may elect to be paid 80 percent of the reasonable cost of services in lieu of 80 percent of the allowed charge for such services.

The 1967 amendments to the Social Security Act introduced a time limit on filing of claims. For bills incurred in the supplementary medical insurance portion of the program after March 1968, claims must be filed no later than the close of the calendar year following the year in which the services are furnished. For services provided during the last 3 months of the calendar year, bills may be submitted through the end of the second year following.

General Tables

Notes

Independent laboratory.—See page ix.

Type of procedure.—See page x.

Technical staff.—Includes all technical personnel other than laboratory directors. Figures are expressed in full-time equivalents.

Geographic classifications.—Based on the address of the laboratory.

All areas: Consists of the United States, Guam, Puerto Rico, Virgin Islands, and other outlying areas.

United States: Consists of the 50 States, and the District of Columbia.

Other outlying areas: Consists of American Samoa, the Canal Zone, Canton Island, Caroline Islands, Mariana Islands, Marshall Islands, Midway Islands, and Wake Island.

Symbols

Quantity zero ----- —
Quantity more than 0 but less than 0.05 ----- 0.0

Table 3.3.1 NUMBER OF INDEPENDENT LABORATORIES, BY TRAINING OF LABORATORY DIRECTOR, AND TECHNICAL STAFF, REGION, DIVISION, AND STATE

[See NOTES preceding General Tables]

Region, division, and State	Total laboratories		Training of laboratory director			Technical staff			
	Number	Percent	Pathologist	Other physician	Non-physician	Total number ¹	Average per laboratory	Physician	Non-physician
Total	2 714	100.0	977	705	1 032	11 987.0	4.4	2 027.3	9 959.7
United States	2 660	98.0	971	694	995	11 842.1	4.5	1 998.3	9 843.8
REGIONS									
Northeastern States	679	25.0	173	93	413	2 534.7	3.7	259.5	2 275.2
North Central States	539	19.9	212	124	203	2 615.3	4.9	426.9	2 188.4
South	570	21.0	241	171	158	3 188.5	5.6	644.9	2 543.6
West	872	32.1	345	306	221	3 503.6	4.0	667.0	2 836.7
DIVISIONS									
The Northeastern States:									
New England	166	6.1	27	24	115	559.3	3.4	97.0	462.3
Middle Atlantic	513	18.9	146	69	298	1 975.5	3.9	162.6	1 812.9
The North Central States:									
East North Central	394	14.5	120	98	176	1 550.5	3.9	193.9	1 356.6
West North Central	145	5.3	92	26	27	1 064.8	7.3	233.0	831.8
The South:									
South Atlantic	222	8.2	93	51	78	1 315.3	5.9	248.3	1 067.0
East South Central	80	2.9	39	25	16	431.6	5.4	78.0	353.6
West South Central	268	9.9	109	95	64	1 441.6	5.4	318.6	1 123.0
The West:									
Mountain	149	5.5	65	31	53	560.5	3.8	117.0	443.5
Pacific	723	26.6	280	275	168	2 943.1	4.1	550.0	2 393.2
STATES									
New England:									
Maine	2	0.1	-	1	1	4.0	2.0	-	4.0
New Hampshire	1	0.0	-	-	1	5.0	5.0	1.0	4.0
Vermont	4	0.1	-	2	2	8.0	2.0	3.0	5.0
Massachusetts	91	3.4	19	16	56	258.2	2.8	37.0	221.3
Rhode Island	17	0.6	1	2	14	46.2	2.7	4.0	42.2
Connecticut	51	1.9	7	3	41	237.9	4.7	52.0	185.9
Middle Atlantic:									
New York	257	9.5	85	36	136	1 302.1	5.1	113.3	1 188.8
New Jersey	129	4.8	25	20	84	263.4	2.0	20.3	243.1
Pennsylvania	127	4.7	36	13	78	410.0	3.2	29.0	381.0
East North Central:									
Ohio	106	3.9	28	30	48	355.9	3.4	22.0	333.9
Indiana	32	1.2	19	5	8	157.0	4.9	5.0	152.0
Illinois	159	5.9	32	48	79	513.5	3.2	79.8	433.8
Michigan	79	2.9	27	14	38	364.1	4.6	47.2	317.0
Wisconsin	18	0.7	14	1	3	160.0	8.9	40.0	120.0
West North Central:									
Minnesota	12	0.4	9	3	-	87.0	7.3	40.0	47.0
Iowa	16	0.6	12	2	2	115.5	7.2	19.0	96.5
Missouri	59	2.2	35	8	16	376.5	6.4	64.8	311.8
North Dakota	10	0.4	6	4	-	110.0	11.0	32.0	78.0
South Dakota	4	0.1	4	-	-	35.0	8.8	8.0	27.0
Nebraska	19	0.7	15	2	2	226.5	11.9	48.0	178.5
Kansas	25	0.9	11	7	7	114.3	4.6	21.3	93.0
South Atlantic:									
Delaware	4	0.1	3	-	1	34.5	8.6	23.0	11.5
Maryland	33	1.2	16	9	8	201.2	6.1	27.5	173.7
District of Columbia	6	0.2	5	1	-	100.0	16.7	12.0	88.0
Virginia	23	0.8	18	-	5	112.7	4.9	22.0	90.7
West Virginia	8	0.3	1	3	4	15.2	1.9	2.3	12.9
North Carolina	11	0.4	6	5	-	40.3	3.7	3.0	37.3
South Carolina	6	0.2	5	1	-	132.0	22.0	35.0	97.0
Georgia	20	0.7	17	3	-	182.3	9.1	18.0	164.3
Florida	111	4.1	22	29	60	497.1	4.5	105.5	391.6
East South Central:									
Kentucky	32	1.2	11	18	3	98.6	3.1	27.0	71.6
Tennessee	27	1.0	12	4	11	135.5	5.0	17.0	118.5
Alabama	12	0.4	11	1	-	147.0	12.3	27.0	120.0
Mississippi	9	0.3	5	2	2	50.5	5.6	7.0	43.5
West South Central:									
Arkansas	14	0.5	8	6	-	125.0	8.9	30.0	95.0
Louisiana	20	0.7	10	9	1	138.0	6.9	29.0	109.0
Oklahoma	39	1.4	14	11	14	218.5	5.6	63.0	155.5
Texas	195	7.2	77	69	49	960.1	4.9	196.6	763.5
Mountain:									
Montana	8	0.3	4	2	2	34.6	4.3	2.0	32.6
Idaho	1	0.0	1	-	-	9.0	9.0	4.0	5.0
Wyoming	3	0.1	3	-	-	20.0	6.7	8.0	12.0
Colorado	34	1.3	13	3	18	130.4	3.8	24.0	106.4
New Mexico	23	0.8	7	9	7	79.5	3.5	7.0	72.5
Arizona	54	2.0	24	11	19	203.0	3.8	47.0	156.0
Utah	13	0.5	5	2	6	43.0	3.3	9.0	34.0
Nevada	13	0.5	8	4	1	41.0	3.2	16.0	25.0
Pacific:									
Washington	65	2.4	38	12	15	277.0	4.3	30.0	247.0
Oregon	31	1.1	20	2	9	220.5	7.1	15.0	205.5
California	609	22.4	213	253	143	2 349.1	3.9	485.0	1 864.2
Alaska	2	0.1	1	1	-	21.0	10.5	3.0	18.0
Hawaii	16	0.6	8	7	1	75.5	4.7	17.0	58.5
Outlying areas:									
Guam	-	-	-	-	-	-	-	-	-
Puerto Rico	53	2.0	5	11	37	142.9	2.7	28.0	114.9
Virgin Islands	1	0.0	1	-	-	2.0	2.0	1.0	1.0
Other outlying areas	-	-	-	-	-	-	-	-	-

¹ Includes all technical personnel other than directors—expressed in full-time equivalents.

Table 3.3.2 NUMBER OF INDEPENDENT LABORATORIES, BY TYPE OF PROCEDURE APPROVED, TRAINING OF LABORATORY DIRECTOR AND TECHNICAL STAFF, REGION, DIVISION, AND STATE

[See NOTES preceding General Tables]

Region, division, State, and type of procedure	Total laboratories		Training of laboratory director			Technical staff			
	Number	Percent	Pathologist	Other physician	Non-physician	Total number ¹	Average per laboratory	Physician	Non-physician
ALL AREAS									
All laboratories.....	2 714	100.0	977	705	1 032	11 987.0	4.4	2 027.3	9 959.7
Microbiology.....	2 157	79.5	807	553	797	10 470.9	4.9	1 778.2	8 692.7
Serology.....	1 742	64.2	775	357	610	8 821.7	5.1	1 469.2	7 352.6
Clinical chemistry.....	2 502	92.2	862	661	979	11 365.5	4.5	1 906.1	9 459.4
Hematology.....	2 513	92.6	874	657	982	11 338.0	4.5	1 906.3	9 431.7
Immunohematology.....	1 455	53.6	788	382	285	8 551.2	5.9	1 482.6	7 068.7
Tissue pathology.....	859	31.7	775	58	26	6 287.5	7.3	1 110.5	5 177.1
Exfoliative cytology.....	939	34.6	820	84	35	6 593.7	7.0	1 177.7	5 416.0
All procedures.....	734	27.0	667	47	20	5 827.2	7.9	1 035.5	4 791.7
UNITED STATES									
All laboratories.....	2 660	100.0	971	694	995	11 842.1	4.5	1 998.3	9 843.8
Microbiology.....	2 110	79.3	806	542	762	10 333.5	4.9	1 752.2	8 581.3
Serology.....	1 735	65.2	774	356	605	8 811.7	5.1	1 468.2	7 343.6
Clinical chemistry.....	2 453	92.2	861	650	942	11 228.1	4.6	1 880.1	9 348.0
Hematology.....	2 468	92.8	873	647	948	11 208.6	4.5	1 880.3	9 328.3
Immunohematology.....	1 450	54.5	787	378	285	8 526.2	5.9	1 475.6	7 050.7
Tissue pathology.....	853	32.1	769	58	26	6 278.0	7.4	1 106.5	5 171.6
Exfoliative cytology.....	932	35.0	814	84	34	6 577.2	7.1	1 170.7	5 406.5
All procedures.....	733	27.6	666	47	20	5 825.2	7.9	1 034.5	4 790.7
NORTHEASTERN STATES									
All laboratories.....	679	100.0	173	93	413	2 534.7	3.7	259.5	2 275.2
Microbiology.....	462	68.0	127	55	280	2 068.4	4.5	193.8	1 874.6
Serology.....	444	65.4	123	44	277	1 835.8	4.1	185.2	1 650.6
Clinical chemistry.....	618	91.0	141	85	392	2 317.6	3.8	231.5	2 086.1
Hematology.....	624	91.9	146	83	395	2 310.2	3.7	230.5	2 079.7
Immunohematology.....	273	40.2	117	37	119	1 443.9	5.3	162.8	1 281.1
Tissue pathology.....	136	20.0	124	6	6	1 071.6	7.9	142.5	929.1
Exfoliative cytology.....	160	23.6	138	10	12	1 127.1	7.0	161.5	965.6
All procedures.....	96	14.1	90	2	4	851.4	8.9	118.5	732.9
NORTH CENTRAL STATES									
All laboratories.....	539	100.0	212	124	203	2 615.3	4.9	426.9	2 188.4
Microbiology.....	404	75.0	187	69	148	2 232.5	5.5	349.3	1 883.2
Serology.....	434	80.5	193	81	160	2 341.1	5.4	359.4	1 981.7
Clinical chemistry.....	497	92.2	196	115	186	2 513.3	5.1	402.4	2 110.9
Hematology.....	500	92.8	198	113	189	2 520.8	5.0	401.4	2 119.4
Immunohematology.....	299	55.5	193	62	44	1 984.6	6.6	320.0	1 664.6
Tissue pathology.....	211	39.1	195	10	6	1 702.3	8.1	256.0	1 446.3
Exfoliative cytology.....	231	42.9	204	18	9	1 770.6	7.7	268.7	1 501.9
All procedures.....	191	35.4	179	8	4	1 606.8	8.4	233.0	1 373.8
SOUTH									
All laboratories.....	570	100.0	241	171	158	3 188.5	5.6	644.9	2 543.6
Microbiology.....	491	86.1	212	147	132	2 940.9	6.0	599.9	2 341.0
Serology.....	294	51.6	203	52	39	2 221.3	7.6	460.8	1 760.6
Clinical chemistry.....	529	92.8	217	159	153	3 072.0	5.8	619.9	2 452.1
Hematology.....	534	93.7	221	160	153	3 084.2	5.8	624.9	2 459.4
Immunohematology.....	316	55.4	212	75	29	2 432.7	7.7	505.4	1 927.3
Tissue pathology.....	241	42.3	206	27	8	2 074.9	8.6	432.8	1 642.2
Exfoliative cytology.....	260	45.6	221	32	7	2 154.4	8.3	452.4	1 702.0
All procedures.....	221	38.8	192	23	6	2 018.7	9.1	421.8	1 596.9
WEST									
All laboratories.....	872	100.0	345	306	221	3 503.6	4.0	667.0	2 836.7
Microbiology.....	753	86.4	280	271	202	3 091.7	4.1	609.2	2 482.5
Serology.....	563	64.6	255	179	129	2 413.5	4.3	462.7	1 950.7
Clinical chemistry.....	809	92.8	307	291	211	3 325.2	4.1	626.2	2 699.0
Hematology.....	810	92.9	308	291	211	3 293.3	4.1	623.5	2 669.9
Immunohematology.....	562	64.4	265	204	93	2 665.0	4.7	487.3	2 177.7
Tissue pathology.....	265	30.4	244	15	6	1 429.2	5.4	275.2	1 154.0
Exfoliative cytology.....	281	32.2	251	24	6	1 525.2	5.4	288.2	1 237.0
All procedures.....	225	25.8	205	14	6	1 348.3	6.0	261.2	1 087.1
NEW ENGLAND									
All laboratories.....	166	100.0	27	24	115	559.3	3.4	97.0	462.3
Microbiology.....	111	66.9	19	12	80	456.8	4.1	76.3	380.5
Serology.....	97	58.4	18	8	71	398.7	4.1	74.0	324.8
Clinical chemistry.....	159	95.8	24	23	112	546.3	3.4	91.0	455.3
Hematology.....	159	95.8	25	22	112	540.3	3.4	92.0	448.3
Immunohematology.....	76	45.8	20	11	45	353.6	4.7	70.3	283.3
Tissue pathology.....	17	10.2	16	-	1	204.5	12.0	56.3	148.2
Exfoliative cytology.....	27	16.3	20	1	6	241.0	8.9	64.3	176.7
All procedures.....	14	8.4	13	-	1	194.5	13.9	52.3	142.2
MIDDLE ATLANTIC									
All laboratories.....	513	100.0	146	69	298	1 975.5	3.9	162.6	1 812.9
Microbiology.....	351	68.4	108	43	200	1 611.7	4.6	117.6	1 494.1
Serology.....	347	67.6	105	36	206	1 437.1	4.1	111.3	1 325.8
Clinical chemistry.....	459	89.5	117	62	280	1 771.4	3.9	140.6	1 630.8
Hematology.....	465	90.6	121	61	283	1 770.0	3.8	138.6	1 631.4
Immunohematology.....	197	38.4	97	26	74	1 090.4	5.5	92.6	997.8
Tissue pathology.....	119	23.2	108	6	5	867.1	7.3	86.3	780.9
Exfoliative cytology.....	133	25.9	118	9	6	886.1	6.7	97.3	788.9
All procedures.....	82	16.0	77	2	3	657.0	8.0	66.3	590.7

¹Includes all technical personnel other than directors—expressed in full-time equivalents.

Table 3.3.2 NUMBER OF INDEPENDENT LABORATORIES, BY TYPE OF PROCEDURE APPROVED, TRAINING OF LABORATORY DIRECTOR AND TECHNICAL STAFF, REGION, DIVISION, AND STATE—Con.

[See NOTES preceding General Tables]

Region, division, State, and type of procedure	Total laboratories		Training of laboratory director			Technical staff			
	Number	Percent	Pathologist	Other physician	Non-physician	Total number ¹	Average per laboratory	Physician	Non-physician
EAST NORTH CENTRAL									
All laboratories	394	100.0	120	98	176	1 550.5	3.9	193.9	1 356.6
Microbiology	277	70.3	100	51	126	1 257.7	4.5	153.3	1 104.4
Serology	329	83.5	105	73	151	1 403.4	4.3	164.4	1 239.0
Clinical chemistry	361	91.6	107	93	161	1 471.0	4.1	175.4	1 295.6
Hematology	365	92.6	108	93	164	1 496.0	4.1	178.4	1 317.6
Immunohematology	193	49.0	104	50	39	1 046.8	5.4	130.0	916.8
Tissue pathology	118	29.9	104	8	6	818.1	6.9	82.0	736.1
Exfoliative cytology	134	34.0	113	13	8	877.8	6.6	95.7	782.2
All procedures	102	25.9	92	6	4	738.6	7.2	66.0	672.6
WEST NORTH CENTRAL									
All laboratories	145	100.0	92	26	27	1 064.8	7.3	233.0	831.8
Microbiology	127	87.6	87	18	22	974.8	7.7	196.0	778.8
Serology	105	72.4	88	8	9	937.8	8.9	195.0	742.8
Clinical chemistry	136	93.8	89	22	25	1 042.3	7.7	227.0	815.3
Hematology	135	93.1	90	20	25	1 024.8	7.6	223.0	801.8
Immunohematology	106	73.1	89	12	5	937.8	8.8	190.0	747.8
Tissue pathology	93	64.1	91	2	—	884.3	9.5	174.0	710.3
Exfoliative cytology	97	66.9	91	5	1	892.8	9.2	173.0	719.8
All procedures	89	61.4	87	2	—	868.3	9.8	167.0	701.3
SOUTH ATLANTIC									
All laboratories	222	100.0	93	51	78	1 315.3	5.9	248.3	1 067.0
Microbiology	180	81.1	77	38	65	1 171.3	6.5	224.3	947.0
Serology	103	46.4	75	14	14	874.9	8.5	186.8	688.1
Clinical chemistry	203	91.4	82	45	76	1 274.1	6.3	241.3	1 032.8
Hematology	204	91.9	83	46	75	1 280.1	6.3	243.3	1 036.8
Immunohematology	105	47.3	78	13	14	951.0	9.1	195.8	755.2
Tissue pathology	83	37.4	73	5	5	820.7	9.9	177.8	642.9
Exfoliative cytology	95	42.8	85	6	4	866.0	9.1	189.8	676.3
All procedures	74	33.3	68	3	3	804.7	10.9	174.8	629.9
EAST SOUTH CENTRAL									
All laboratories	80	100.0	39	25	16	431.6	5.4	78.0	353.6
Microbiology	64	80.0	32	21	11	369.6	5.8	68.0	301.6
Serology	52	65.0	32	6	14	335.6	6.5	54.0	281.6
Clinical chemistry	71	88.8	32	23	16	383.6	5.4	68.0	315.6
Hematology	72	90.0	34	23	15	384.6	5.3	69.0	315.6
Immunohematology	38	47.5	33	3	2	320.6	8.4	54.0	266.6
Tissue pathology	38	47.5	34	3	1	334.6	8.8	55.0	279.6
Exfoliative cytology	40	50.0	36	3	1	348.6	8.7	60.0	288.6
All procedures	33	41.3	30	2	1	304.6	9.2	50.0	254.6
WEST SOUTH CENTRAL									
All laboratories	268	100.0	109	95	64	1 441.6	5.4	318.6	1 123.0
Microbiology	247	92.2	103	88	56	1 400.0	5.7	307.6	1 092.4
Serology	139	51.9	96	32	11	1 010.8	7.3	220.0	790.8
Clinical chemistry	255	95.1	103	91	61	1 414.3	5.5	310.6	1 103.7
Hematology	258	96.3	104	91	63	1 419.6	5.5	312.6	1 107.0
Immunohematology	173	64.6	101	59	13	1 161.1	6.7	255.6	905.5
Tissue pathology	120	44.8	99	19	2	919.6	7.7	200.0	719.6
Exfoliative cytology	125	46.6	100	23	2	939.7	7.5	202.6	737.1
All procedures	114	42.5	94	18	2	909.3	8.0	197.0	712.3
MOUNTAIN									
All laboratories	149	100.0	65	31	53	560.5	3.8	117.0	443.5
Microbiology	121	81.2	55	21	45	485.6	4.0	94.0	391.6
Serology	87	58.4	52	15	20	434.9	5.0	88.0	346.9
Clinical chemistry	132	88.6	58	29	45	513.1	3.9	98.0	415.1
Hematology	134	89.9	58	28	48	515.1	3.8	99.0	416.1
Immunohematology	82	55.0	55	13	14	439.9	5.4	91.0	348.9
Tissue pathology	58	38.9	53	3	2	367.3	6.3	77.0	290.3
Exfoliative cytology	60	40.3	54	4	2	380.8	6.3	82.0	298.8
All procedures	54	36.2	49	3	2	358.9	6.6	75.0	283.9
PACIFIC									
All laboratories	723	100.0	280	275	168	2 943.1	4.1	550.0	2 393.2
Microbiology	632	87.4	225	250	157	2 606.1	4.1	515.2	2 090.9
Serology	476	65.8	203	164	109	1 978.6	4.2	374.7	1 603.8
Clinical chemistry	677	93.6	249	262	166	2 812.1	4.2	528.2	2 283.9
Hematology	676	93.5	250	263	163	2 778.2	4.1	524.5	2 253.8
Immunohematology	480	66.4	210	191	79	2 225.1	4.6	396.3	1 828.8
Tissue pathology	207	28.6	191	12	4	1 061.9	5.1	198.2	863.7
Exfoliative cytology	221	30.6	197	20	4	1 144.4	5.2	206.2	938.2
All procedures	171	23.7	156	11	4	989.4	5.8	186.2	803.2
ALABAMA									
All laboratories	12	100.0	11	1	—	147.0	12.3	27.0	120.0
Microbiology	11	91.7	10	1	—	144.0	13.1	26.0	118.0
Serology	10	83.3	10	—	—	143.0	14.3	26.0	117.0
Clinical chemistry	11	91.7	10	—	—	144.0	13.1	26.0	118.0
Hematology	12	100.0	11	1	—	147.0	12.3	27.0	120.0
Immunohematology	10	83.3	10	—	—	143.0	14.3	26.0	117.0
Tissue pathology	11	91.7	11	—	—	146.0	13.3	27.0	119.0
Exfoliative cytology	11	91.7	11	—	—	146.0	13.3	27.0	119.0
All procedures	10	83.3	10	—	—	143.0	14.3	26.0	117.0

¹ Includes all technical personnel other than directors—expressed in full-time equivalents.

Table 3.3.2 NUMBER OF INDEPENDENT LABORATORIES, BY TYPE OF PROCEDURE APPROVED, TRAINING OF LABORATORY DIRECTOR AND TECHNICAL STAFF, REGION, DIVISION, AND STATE—Con.

[See NOTES preceding General Tables]

Region, division, State, and type of procedure	Total laboratories		Training of laboratory director			Technical staff			
	Number	Percent	Pathologist	Other physician	Non-physician	Total number ¹	Average per laboratory	Physician	Non-physician
ALASKA									
All laboratories	2	100.0	1	1	-	21.0	10.5	3.0	18.0
Microbiology	2	100.0	1	1	-	21.0	10.5	3.0	18.0
Serology	2	100.0	1	1	-	21.0	10.5	3.0	18.0
Clinical chemistry	2	100.0	1	1	-	21.0	10.5	3.0	18.0
Hematology	2	100.0	1	1	-	21.0	10.5	3.0	18.0
Immunohematology	2	100.0	1	1	-	21.0	10.5	3.0	18.0
Tissue pathology	2	100.0	1	1	-	21.0	10.5	3.0	18.0
Exfoliative cytology	2	100.0	1	1	-	21.0	10.5	3.0	18.0
All procedures	2	100.0	1	1	-	21.0	10.5	3.0	18.0
ARIZONA									
All laboratories	54	100.0	24	11	19	203.0	3.8	47.0	156.0
Microbiology	48	88.9	23	8	17	189.0	3.9	45.0	144.0
Serology	48	88.9	22	10	16	193.0	4.0	44.0	149.0
Clinical chemistry	51	94.4	22	11	18	195.0	3.8	43.0	152.0
Hematology	50	92.6	22	11	17	195.0	3.9	43.0	152.0
Immunohematology	35	64.8	21	7	7	165.0	4.7	37.0	128.0
Tissue pathology	21	38.9	20	1	-	130.0	6.2	35.0	95.0
Exfoliative cytology	22	40.7	21	1	-	137.0	6.2	36.0	101.0
All procedures	20	37.0	19	1	-	127.0	6.4	33.0	94.0
ARKANSAS									
All laboratories	14	100.0	8	6	-	125.0	8.9	30.0	95.0
Microbiology	14	100.0	8	6	-	125.0	8.9	30.0	95.0
Serology	14	100.0	8	6	-	125.0	8.9	30.0	95.0
Clinical chemistry	14	100.0	8	6	-	125.0	8.9	30.0	95.0
Hematology	13	92.9	8	5	-	117.0	9.0	27.0	90.0
Immunohematology	12	85.7	8	4	-	114.0	9.5	27.0	87.0
Tissue pathology	12	85.7	8	4	-	114.0	9.5	27.0	87.0
Exfoliative cytology	12	85.7	8	4	-	114.0	9.5	27.0	87.0
All procedures	12	85.7	8	4	-	114.0	9.5	27.0	87.0
CALIFORNIA									
All laboratories	609	100.0	213	253	143	2 349.1	3.9	485.0	1 864.2
Microbiology	542	89.0	173	233	136	2 183.1	4.0	461.2	1 721.9
Serology	391	64.2	151	152	88	1 531.1	3.9	324.7	1 206.3
Clinical chemistry	574	94.3	190	242	142	2 270.1	4.0	465.2	1 804.9
Hematology	569	93.4	188	243	138	2 249.2	4.0	463.5	1 785.8
Immunohematology	409	67.2	162	179	68	1 799.6	4.4	356.3	1 443.3
Tissue pathology	154	25.3	141	10	3	792.4	5.1	160.2	632.2
Exfoliative cytology	163	26.8	144	16	3	813.9	5.0	167.2	646.7
All procedures	128	21.0	116	9	3	746.9	5.8	152.2	594.7
COLORADO									
All laboratories	34	100.0	13	3	18	130.4	3.8	24.0	106.4
Microbiology	30	88.2	12	1	17	120.0	4.0	23.0	97.0
Serology	12	35.3	12	-	-	94.3	7.9	20.0	74.3
Clinical chemistry	29	85.3	12	3	14	121.0	4.2	23.0	98.0
Hematology	30	88.2	12	2	16	121.0	4.0	23.0	98.0
Immunohematology	14	41.2	12	1	1	97.8	7.0	22.0	75.8
Tissue pathology	13	38.2	13	-	-	96.7	7.4	20.0	76.7
Exfoliative cytology	13	38.2	13	-	-	96.7	7.4	20.0	76.7
All procedures	12	35.3	12	-	-	94.3	7.9	20.0	74.3
CONNECTICUT									
All laboratories	51	100.0	7	3	41	237.9	4.7	52.0	185.9
Microbiology	39	76.5	6	3	30	222.9	5.7	50.0	172.9
Serology	47	92.2	6	2	39	231.9	4.9	51.0	180.9
Clinical chemistry	51	100.0	7	3	41	237.9	4.7	52.0	185.9
Hematology	51	100.0	7	3	41	237.9	4.7	52.0	185.9
Immunohematology	9	17.6	6	3	-	147.5	16.4	47.0	100.5
Tissue pathology	3	5.9	3	-	-	127.0	42.3	44.0	83.0
Exfoliative cytology	8	15.7	6	-	2	150.5	18.8	47.0	103.5
All procedures	2	3.9	2	-	-	126.0	63.0	44.0	82.0
DELAWARE									
All laboratories	4	100.0	3	-	1	34.5	8.6	23.0	11.5
Microbiology	4	100.0	3	-	1	34.5	8.6	23.0	11.5
Serology	4	100.0	3	-	1	34.5	8.6	23.0	11.5
Clinical chemistry	4	100.0	3	-	1	34.5	8.6	23.0	11.5
Hematology	4	100.0	3	-	1	34.5	8.6	23.0	11.5
Immunohematology	4	100.0	3	-	1	34.5	8.6	23.0	11.5
Tissue pathology	3	75.0	3	-	-	33.0	11.0	23.0	10.0
Exfoliative cytology	3	75.0	3	-	-	33.0	11.0	23.0	10.0
All procedures	3	75.0	3	-	-	33.0	11.0	23.0	10.0
DISTRICT OF COLUMBIA									
All laboratories	6	100.0	5	1	-	100.0	16.7	12.0	88.0
Microbiology	5	83.3	5	-	-	96.0	19.2	12.0	84.0
Serology	5	83.3	5	-	-	96.0	19.2	12.0	84.0
Clinical chemistry	5	83.3	5	-	-	96.0	19.2	12.0	84.0
Hematology	5	83.3	5	-	-	96.0	19.2	12.0	84.0
Immunohematology	5	83.3	5	-	-	96.0	19.2	12.0	84.0
Tissue pathology	5	83.3	5	-	-	96.0	19.2	12.0	84.0
Exfoliative cytology	6	100.0	5	1	-	100.0	16.7	12.0	88.0
All procedures	5	83.3	5	-	-	96.0	19.2	12.0	84.0

¹ Includes all technical personnel other than directors—expressed in full-time equivalents.

Table 3.3.2 NUMBER OF INDEPENDENT LABORATORIES, BY TYPE OF PROCEDURE APPROVED, TRAINING OF LABORATORY DIRECTOR AND TECHNICAL STAFF, REGION, DIVISION, AND STATE—Con.

[See NOTES preceding General Tables]

Region, division, State, and type of procedure	Total laboratories		Training of laboratory director			Technical staff			
	Number	Percent	Pathologist	Other physician	Non-physician	Total number ¹	Average per laboratory	Physician	Non-physician
FLORIDA									
All laboratories	111	100.0	22	29	60	497.1	4.5	105.5	391.6
Microbiology	96	86.5	21	23	52	466.6	4.9	97.5	369.1
Serology	25	22.5	18	3	4	207.8	8.3	60.0	147.8
Clinical chemistry	108	97.3	22	27	59	492.1	4.6	103.5	388.6
Hematology	107	96.4	22	27	58	492.1	4.6	103.5	388.6
Immunohematology	21	18.9	19	1	1	208.8	9.9	61.0	147.8
Tissue pathology	22	19.8	17	3	2	206.8	9.4	60.0	146.8
Exfoliative cytology	20	18.0	18	1	1	206.4	10.3	61.0	145.4
All procedures	19	17.1	17	1	1	200.8	10.6	58.0	142.8
GEORGIA									
All laboratories	20	100.0	17	3	-	182.3	9.1	18.0	164.3
Microbiology	18	90.0	15	3	-	177.3	9.9	18.0	159.3
Serology	15	75.0	14	1	-	170.0	11.3	18.0	152.0
Clinical chemistry	18	90.0	15	3	-	177.3	9.9	18.0	159.3
Hematology	18	90.0	15	3	-	177.3	9.9	18.0	159.3
Immunohematology	18	90.0	15	3	-	177.3	9.9	18.0	159.3
Tissue pathology	16	80.0	15	1	-	173.0	10.8	18.0	155.0
Exfoliative cytology	18	90.0	17	1	-	177.0	9.8	18.0	159.0
All procedures	15	75.0	14	1	-	170.0	11.3	18.0	152.0
HAWAII									
All laboratories	16	100.0	8	7	1	75.5	4.7	17.0	58.5
Microbiology	10	62.5	4	5	1	52.5	5.3	11.0	41.5
Serology	13	81.3	7	5	1	66.5	5.1	15.0	51.5
Clinical chemistry	16	100.0	8	7	1	75.5	4.7	17.0	58.5
Hematology	16	100.0	8	7	1	75.5	4.7	17.0	58.5
Immunohematology	6	37.5	4	2	-	41.5	6.9	6.0	35.5
Tissue pathology	3	18.8	3	-	-	33.5	11.2	4.0	29.5
Exfoliative cytology	5	31.3	5	-	-	36.5	7.3	5.0	31.5
All procedures	3	18.8	3	-	-	33.5	11.2	4.0	29.5
IDAHO									
All laboratories	1	100.0	1	-	-	9.0	9.0	4.0	5.0
Microbiology	-	-	-	-	-	-	-	-	-
Serology	-	-	-	-	-	-	-	-	-
Clinical chemistry	1	100.0	1	-	-	9.0	9.0	4.0	5.0
Hematology	-	-	-	-	-	-	-	-	-
Immunohematology	-	-	-	-	-	-	-	-	-
Tissue pathology	-	-	-	-	-	-	-	-	-
Exfoliative cytology	-	-	-	-	-	-	-	-	-
All procedures	-	-	-	-	-	-	-	-	-
ILLINOIS									
All laboratories	159	100.0	32	48	79	513.5	3.2	79.8	433.8
Microbiology	107	67.3	27	23	57	380.4	3.6	64.8	315.7
Serology	123	77.4	26	28	69	429.6	3.5	67.8	361.9
Clinical chemistry	142	89.3	27	45	70	475.5	3.3	74.8	400.8
Hematology	145	91.2	28	46	71	501.5	3.5	77.8	423.8
Immunohematology	78	49.1	24	27	27	317.5	4.1	44.0	273.5
Tissue pathology	30	18.9	25	3	2	167.5	5.6	13.0	154.5
Exfoliative cytology	37	23.3	29	5	3	188.1	5.1	16.0	172.1
All procedures	26	16.4	22	2	2	157.5	6.1	10.0	147.5
INDIANA									
All laboratories	32	100.0	19	5	8	157.0	4.9	5.0	152.0
Microbiology	24	75.0	18	4	2	152.0	6.3	5.0	147.0
Serology	31	96.9	18	5	8	157.0	5.1	5.0	152.0
Clinical chemistry	31	96.9	18	5	8	157.0	5.1	5.0	152.0
Hematology	31	96.9	18	5	8	157.0	5.1	5.0	152.0
Immunohematology	29	90.6	18	5	6	153.0	5.3	5.0	148.0
Tissue pathology	21	65.6	19	2	-	149.0	7.1	5.0	144.0
Exfoliative cytology	22	68.8	19	3	-	149.0	6.8	5.0	144.0
All procedures	20	62.5	18	2	-	149.0	7.5	5.0	144.0
IOWA									
All laboratories	16	100.0	12	2	2	115.5	7.2	19.0	96.5
Microbiology	15	93.8	12	2	1	111.5	7.4	19.0	92.5
Serology	12	75.0	12	-	-	101.0	8.4	17.0	84.0
Clinical chemistry	16	100.0	12	2	2	115.5	7.2	19.0	96.5
Hematology	15	93.8	12	2	1	111.5	7.4	19.0	92.5
Immunohematology	14	87.5	12	2	-	110.5	7.9	19.0	91.5
Tissue pathology	12	75.0	12	-	-	101.0	8.4	17.0	84.0
Exfoliative cytology	12	75.0	12	-	-	101.0	8.4	17.0	84.0
All procedures	12	75.0	12	-	-	101.0	8.4	17.0	84.0
KANSAS									
All laboratories	25	100.0	11	7	7	114.3	4.6	21.3	93.0
Microbiology	23	92.0	11	6	6	111.3	4.8	21.3	90.0
Serology	12	48.0	11	1	-	95.3	7.9	18.3	77.0
Clinical chemistry	22	88.0	11	6	5	110.3	5.0	21.3	89.0
Hematology	24	96.0	11	6	7	111.3	4.6	21.3	90.0
Immunohematology	13	52.0	11	2	-	99.3	7.6	21.3	78.0
Tissue pathology	12	48.0	11	1	-	95.3	7.9	18.3	77.0
Exfoliative cytology	12	48.0	11	1	-	95.3	7.9	18.3	77.0
All procedures	12	48.0	11	1	-	95.3	7.9	18.3	77.0

¹ Includes all technical personnel other than directors—expressed in full-time equivalents.

Table 3.3.2 NUMBER OF INDEPENDENT LABORATORIES, BY TYPE OF PROCEDURE APPROVED, TRAINING OF LABORATORY DIRECTOR AND TECHNICAL STAFF, REGION, DIVISION, AND STATE—Con.

[See NOTES preceding General Tables]

Region, division, State, and type of procedure	Total laboratories		Training of laboratory director			Technical staff			
	Number	Percent	Pathologist	Other physician	Non-physician	Total number ¹	Average per laboratory	Physician	Non-physician
KENTUCKY									
All laboratories	32	100.0	11	18	3	98.6	3.1	27.0	71.6
Microbiology	28	87.5	10	17	1	90.6	3.2	27.0	63.6
Serology	13	40.6	9	3	1	50.6	3.9	13.0	37.6
Clinical chemistry	31	96.9	10	18	3	98.6	3.2	27.0	71.6
Hematology	30	93.8	10	18	2	95.6	3.2	27.0	68.6
Immunohematology	10	31.3	9	1	-	46.6	4.7	13.0	33.6
Tissue pathology	8	25.0	8	-	-	36.6	4.6	9.0	27.6
Exfoliative cytology	9	28.1	9	-	-	36.6	4.1	9.0	27.6
All procedures	8	25.0	8	-	-	36.6	4.6	9.0	27.6
LOUISIANA									
All laboratories	20	100.0	10	9	1	138.0	6.9	29.0	109.0
Microbiology	17	85.0	9	7	1	133.0	7.8	28.0	105.0
Serology	15	75.0	9	6	-	127.0	8.5	27.0	100.0
Clinical chemistry	18	90.0	9	8	1	135.0	7.5	28.0	107.0
Hematology	18	90.0	9	8	1	135.0	7.5	28.0	107.0
Immunohematology	16	80.0	9	6	1	132.0	8.3	28.0	104.0
Tissue pathology	16	80.0	10	6	-	128.0	8.0	28.0	100.0
Exfoliative cytology	16	80.0	9	7	-	129.0	8.1	27.0	102.0
All procedures	15	75.0	9	6	-	127.0	8.5	27.0	100.0
MAINE									
All laboratories	2	100.0	-	1	1	4.0	2.0	-	4.0
Microbiology	1	50.0	-	-	1	-	-	-	-
Serology	-	-	-	-	-	-	-	-	-
Clinical chemistry	2	100.0	-	1	1	4.0	2.0	-	4.0
Hematology	2	100.0	-	1	1	4.0	2.0	-	4.0
Immunohematology	-	-	-	-	-	-	-	-	-
Tissue pathology	-	-	-	-	-	-	-	-	-
Exfoliative cytology	-	-	-	-	-	-	-	-	-
All procedures	-	-	-	-	-	-	-	-	-
MARYLAND									
All laboratories	33	100.0	16	9	8	201.2	6.1	27.5	173.7
Microbiology	21	63.6	9	7	5	120.2	5.7	16.5	103.7
Serology	20	60.6	11	4	5	101.2	5.1	19.5	81.7
Clinical chemistry	26	78.8	12	7	7	185.2	7.1	26.5	158.7
Hematology	27	81.8	12	7	8	187.2	6.9	26.5	160.7
Immunohematology	24	72.7	12	6	6	161.2	6.7	26.5	134.7
Tissue pathology	13	39.4	12	-	1	77.5	6.0	15.3	62.2
Exfoliative cytology	18	54.5	15	2	1	90.5	5.0	19.3	71.2
All procedures	10	30.3	9	-	1	73.5	7.3	15.3	58.2
MASSACHUSETTS									
All laboratories	91	100.0	19	16	56	258.2	2.8	37.0	221.3
Microbiology	53	58.2	12	6	35	176.8	3.3	18.3	158.5
Serology	39	42.9	11	5	23	135.7	3.5	19.0	116.8
Clinical chemistry	86	94.5	16	15	55	246.2	2.9	31.0	215.3
Hematology	84	92.3	17	14	53	239.2	2.8	32.0	207.3
Immunohematology	56	61.5	13	7	36	170.9	3.1	18.3	152.7
Tissue pathology	12	13.2	12	-	-	71.5	6.0	12.3	59.2
Exfoliative cytology	17	18.7	13	1	3	84.5	5.0	17.3	67.2
All procedures	10	11.0	10	-	-	62.5	6.2	8.3	54.2
MICHIGAN									
All laboratories	79	100.0	27	14	38	364.1	4.6	47.2	317.0
Microbiology	66	83.5	22	11	33	321.9	4.9	38.5	283.4
Serology	67	84.8	24	12	31	332.6	5.0	38.7	294.0
Clinical chemistry	73	92.4	25	13	35	347.6	4.8	42.7	305.0
Hematology	74	93.7	25	13	36	347.6	4.7	42.7	305.0
Immunohematology	30	38.0	25	3	2	200.1	6.7	35.0	165.1
Tissue pathology	26	32.9	23	2	1	180.1	6.9	26.0	154.1
Exfoliative cytology	27	34.2	25	1	1	187.7	7.0	25.7	162.1
All procedures	22	27.8	21	1	-	148.1	6.7	20.0	128.1
MINNESOTA									
All laboratories	12	100.0	9	3	-	87.0	7.3	40.0	47.0
Microbiology	9	75.0	7	2	-	76.0	8.4	35.0	41.0
Serology	8	66.7	7	1	-	66.0	8.3	28.0	38.0
Clinical chemistry	9	75.0	7	2	-	76.0	8.4	35.0	41.0
Hematology	11	91.7	9	2	-	87.0	7.9	40.0	47.0
Immunohematology	8	66.7	7	1	-	66.0	8.3	28.0	38.0
Tissue pathology	9	75.0	9	-	-	61.0	6.8	28.0	33.0
Exfoliative cytology	10	83.3	9	1	-	61.0	6.1	28.0	33.0
All procedures	7	58.3	7	-	-	50.0	7.1	23.0	27.0
MISSISSIPPI									
All laboratories	9	100.0	5	2	2	50.5	5.6	7.0	43.5
Microbiology	7	77.8	4	2	1	41.5	5.9	3.0	38.5
Serology	8	88.9	4	2	2	41.5	5.2	3.0	38.5
Clinical chemistry	8	88.9	4	2	2	41.5	5.2	3.0	38.5
Hematology	8	88.9	4	2	2	41.5	5.2	3.0	38.5
Immunohematology	7	77.8	4	2	1	41.5	5.9	3.0	38.5
Tissue pathology	7	77.8	4	2	1	41.5	5.9	3.0	38.5
Exfoliative cytology	8	88.9	5	2	1	50.5	6.3	7.0	43.5
All procedures	7	77.8	4	2	1	41.5	5.9	3.0	38.5

¹ Includes all technical personnel other than directors—expressed in full-time equivalents.

Table 3.3.2 NUMBER OF INDEPENDENT LABORATORIES, BY TYPE OF PROCEDURE APPROVED, TRAINING OF LABORATORY DIRECTOR AND TECHNICAL STAFF, REGION, DIVISION, AND STATE—Con.

[See NOTES preceding General Tables]

Region, division, State, and type of procedure	Total laboratories		Training of laboratory director			Technical staff			
	Number	Percent	Pathologist	Other physician	Non-physician	Total number ¹	Average per laboratory	Physician	Non-physician
MISSOURI									
All laboratories	59	100.0	35	8	16	376.5	6.4	64.8	311.8
Microbiology	53	89.8	34	6	13	363.0	6.8	63.8	299.3
Serology	47	79.7	35	3	9	335.0	7.1	53.8	281.3
Clinical chemistry	58	98.3	35	7	16	373.5	6.4	64.8	308.8
Hematology	57	96.6	35	7	15	372.0	6.5	64.8	307.3
Immunohematology	46	78.0	35	6	5	352.5	7.7	64.8	287.8
Tissue pathology	34	57.6	34	-	-	314.5	9.3	52.8	261.8
Exfoliative cytology	37	62.7	35	1	1	323.5	8.7	52.8	270.8
All procedures	34	57.6	34	-	-	314.5	9.3	52.8	261.8
MONTANA									
All laboratories	8	100.0	4	2	2	34.6	4.3	2.0	32.6
Microbiology	7	87.5	4	2	1	33.6	4.8	2.0	31.6
Serology	5	62.5	4	-	1	26.1	5.2	2.0	24.1
Clinical chemistry	7	87.5	4	1	2	33.1	4.7	2.0	31.1
Hematology	7	87.5	4	1	2	33.1	4.7	2.0	31.1
Immunohematology	6	75.0	4	1	1	32.1	5.4	2.0	30.1
Tissue pathology	5	62.5	4	-	1	26.1	5.2	2.0	24.1
Exfoliative cytology	5	62.5	4	-	1	26.1	5.2	2.0	24.1
All procedures	5	62.5	4	-	1	26.1	5.2	2.0	24.1
NEBRASKA									
All laboratories	19	100.0	15	2	2	226.5	11.9	48.0	178.5
Microbiology	16	84.2	14	-	2	206.0	12.9	39.0	167.0
Serology	14	73.7	14	-	-	203.5	14.5	39.0	164.5
Clinical chemistry	17	89.5	14	1	2	222.0	13.1	47.0	175.0
Hematology	16	84.2	14	-	2	206.0	12.9	39.0	167.0
Immunohematology	14	73.7	14	-	-	203.5	14.5	39.0	164.5
Tissue pathology	15	78.9	15	-	-	206.5	13.8	40.0	166.5
Exfoliative cytology	16	84.2	15	1	-	208.0	13.0	40.0	168.0
All procedures	14	73.7	14	-	-	203.5	14.5	39.0	164.5
NEVADA									
All laboratories	13	100.0	8	4	1	41.0	3.2	16.0	25.0
Microbiology	5	38.5	3	1	1	13.0	2.6	4.0	9.0
Serology	6	46.2	3	2	1	18.0	3.0	6.0	12.0
Clinical chemistry	11	84.6	6	4	1	25.0	2.3	6.0	19.0
Hematology	12	92.3	7	4	1	33.0	2.8	11.0	22.0
Immunohematology	7	53.8	5	1	1	31.0	4.4	14.0	17.0
Tissue pathology	4	30.8	3	-	1	11.0	2.8	4.0	7.0
Exfoliative cytology	4	30.8	3	-	1	11.0	2.8	4.0	7.0
All procedures	4	30.8	3	-	1	11.0	2.8	4.0	7.0
NEW HAMPSHIRE									
All laboratories	1	100.0	-	-	1	5.0	5.0	1.0	4.0
Microbiology	1	100.0	-	-	1	5.0	5.0	1.0	4.0
Serology	-	-	-	-	-	-	-	-	-
Clinical chemistry	1	100.0	-	-	1	5.0	5.0	1.0	4.0
Hematology	1	100.0	-	-	1	5.0	5.0	1.0	4.0
Immunohematology	1	100.0	-	-	1	5.0	5.0	1.0	4.0
Tissue pathology	-	-	-	-	-	-	-	-	-
Exfoliative cytology	-	-	-	-	-	-	-	-	-
All procedures	-	-	-	-	-	-	-	-	-
NEW JERSEY									
All laboratories	129	100.0	25	20	84	263.4	2.0	20.3	243.1
Microbiology	97	75.2	24	14	59	222.3	2.3	17.3	205.0
Serology	105	81.4	23	13	69	225.8	2.2	18.3	207.5
Clinical chemistry	122	94.6	24	16	82	247.3	2.0	19.3	228.0
Hematology	116	89.9	24	16	76	240.9	2.1	19.3	221.6
Immunohematology	57	44.2	24	10	23	151.4	2.7	13.3	138.1
Tissue pathology	25	19.4	24	1	-	79.6	3.2	11.3	68.3
Exfoliative cytology	27	20.9	24	2	1	82.6	3.1	11.3	71.3
All procedures	22	17.1	22	-	-	71.6	3.3	11.3	60.3
NEW MEXICO									
All laboratories	23	100.0	7	9	7	79.5	3.5	7.0	72.5
Microbiology	19	82.6	5	8	6	76.5	4.0	7.0	69.5
Serology	9	39.1	5	3	1	63.5	7.1	3.0	60.5
Clinical chemistry	21	91.3	5	9	7	76.5	3.6	7.0	69.5
Hematology	20	87.0	5	9	6	76.5	3.8	7.0	69.5
Immunohematology	9	39.1	5	3	1	63.5	7.1	3.0	60.5
Tissue pathology	9	39.1	7	2	-	64.5	7.2	3.0	61.5
Exfoliative cytology	9	39.1	7	2	-	64.5	7.2	3.0	61.5
All procedures	7	30.4	5	2	-	61.5	8.8	3.0	58.5
NEW YORK									
All laboratories	257	100.0	85	36	136	1 302.1	5.1	113.3	1 188.8
Microbiology	179	69.6	59	21	99	1 047.1	5.8	76.3	970.8
Serology	190	73.9	59	18	113	1 021.0	5.4	71.0	950.0
Clinical chemistry	222	86.4	67	33	122	1 146.1	5.2	94.3	1 051.8
Hematology	234	91.1	71	33	130	1 155.1	4.9	92.3	1 062.8
Immunohematology	104	40.5	49	9	46	745.2	7.2	57.3	687.9
Tissue pathology	65	25.3	59	4	2	618.8	9.5	55.0	563.8
Exfoliative cytology	68	26.5	60	6	2	611.8	9.0	64.0	547.8
All procedures	34	13.2	33	1	-	423.6	12.5	35.0	388.6

¹ Includes all technical personnel other than directors—expressed in full-time equivalents.

Table 3.3.2 NUMBER OF INDEPENDENT LABORATORIES, BY TYPE OF PROCEDURE APPROVED, TRAINING OF LABORATORY DIRECTOR AND TECHNICAL STAFF, REGION, DIVISION, AND STATE—Con.

[See NOTES preceding General Tables]

Region, division, State, and type of procedure	Total laboratories		Training of laboratory director			Technical staff			
	Number	Percent	Pathologist	Other physician	Non-physician	Total number ¹	Average per laboratory	Physician	Non-physician
NORTH CAROLINA									
All laboratories.....	11	100.0	6	5	-	40.3	3.7	3.0	37.3
Microbiology.....	7	63.6	4	3	-	32.0	4.6	2.0	30.0
Serology.....	8	72.7	5	3	-	33.3	4.2	3.0	30.3
Clinical chemistry.....	9	81.8	5	4	-	38.3	4.3	3.0	35.3
Hematology.....	10	90.9	5	5	-	39.3	3.9	3.0	36.3
Immunohematology.....	7	63.6	4	3	-	32.0	4.6	2.0	30.0
Tissue pathology.....	5	45.5	4	1	-	26.0	5.2	2.0	24.0
Exfoliative cytology.....	6	54.5	5	1	-	27.0	4.5	2.0	25.0
All procedures.....	5	45.5	4	1	-	26.0	5.2	2.0	24.0
NORTH DAKOTA									
All laboratories.....	10	100.0	6	4	-	110.0	11.0	32.0	78.0
Microbiology.....	7	70.0	5	2	-	72.0	10.3	10.0	62.0
Serology.....	8	80.0	5	3	-	102.0	12.8	31.0	71.0
Clinical chemistry.....	10	100.0	6	4	-	110.0	11.0	32.0	78.0
Hematology.....	8	80.0	5	3	-	102.0	12.8	31.0	71.0
Immunohematology.....	7	70.0	6	1	-	71.0	10.1	10.0	61.0
Tissue pathology.....	7	70.0	6	1	-	71.0	10.1	10.0	61.0
Exfoliative cytology.....	6	60.0	5	1	-	69.0	11.5	9.0	60.0
All procedures.....	6	60.0	5	1	-	69.0	11.5	9.0	60.0
OHIO									
All laboratories.....	106	100.0	28	30	48	355.9	3.4	22.0	333.9
Microbiology.....	70	66.0	24	13	33	294.9	4.2	19.0	275.9
Serology.....	96	90.6	26	27	43	345.1	3.6	21.0	324.1
Clinical chemistry.....	101	95.3	26	29	46	350.9	3.5	22.0	328.9
Hematology.....	100	94.3	26	28	46	348.9	3.5	22.0	326.9
Immunohematology.....	44	41.5	26	14	4	237.3	5.4	16.0	221.3
Tissue pathology.....	31	29.2	27	1	3	209.5	6.8	15.0	194.5
Exfoliative cytology.....	35	33.0	27	4	4	220.0	6.3	15.0	205.0
All procedures.....	27	25.5	24	1	2	194.5	7.2	15.0	179.5
OKLAHOMA									
All laboratories.....	39	100.0	14	11	14	218.5	5.6	63.0	155.5
Microbiology.....	33	84.6	14	8	11	200.2	6.1	58.0	142.2
Serology.....	23	59.0	14	6	3	137.2	6.0	43.0	94.2
Clinical chemistry.....	35	89.7	14	9	12	209.5	6.0	63.0	146.5
Hematology.....	37	94.9	14	9	14	213.5	5.8	63.0	150.5
Immunohematology.....	26	66.7	14	8	4	150.5	5.8	50.0	100.5
Tissue pathology.....	18	46.2	13	5	-	115.2	6.4	32.0	83.2
Exfoliative cytology.....	20	51.3	14	6	-	124.2	6.2	32.0	92.2
All procedures.....	17	43.6	13	4	-	114.2	6.7	32.0	82.2
OREGON									
All laboratories.....	31	100.0	20	2	9	220.5	7.1	15.0	205.5
Microbiology.....	22	71.0	14	1	7	117.5	5.3	12.0	105.5
Serology.....	22	71.0	12	1	9	140.5	6.4	12.0	128.5
Clinical chemistry.....	27	87.1	17	1	9	209.5	7.8	15.0	194.5
Hematology.....	27	87.1	17	1	9	165.5	6.1	13.0	152.5
Immunohematology.....	17	54.8	14	1	2	141.5	8.3	12.0	129.5
Tissue pathology.....	10	32.3	10	-	-	50.5	5.1	11.0	39.5
Exfoliative cytology.....	11	35.5	10	1	-	98.5	9.0	11.0	87.5
All procedures.....	8	25.8	8	-	-	44.5	5.6	11.0	33.5
PENNSYLVANIA									
All laboratories.....	127	100.0	36	13	78	410.0	3.2	29.0	381.0
Microbiology.....	75	59.1	25	8	42	342.3	4.6	24.0	318.3
Serology.....	52	40.9	23	5	24	190.3	3.7	22.0	168.3
Clinical chemistry.....	115	90.6	26	13	76	378.0	3.3	27.0	351.0
Hematology.....	115	90.6	26	12	77	374.0	3.3	27.0	347.0
Immunohematology.....	36	28.3	24	7	5	193.8	5.4	22.0	171.8
Tissue pathology.....	29	22.8	25	1	3	168.8	5.8	20.0	148.8
Exfoliative cytology.....	38	29.9	34	1	3	191.8	5.0	22.0	169.8
All procedures.....	26	20.5	22	1	3	161.8	6.2	20.0	141.8
RHODE ISLAND									
All laboratories.....	17	100.0	1	2	14	46.2	2.7	4.0	42.2
Microbiology.....	15	88.2	1	2	12	45.2	3.0	4.0	41.2
Serology.....	10	58.8	1	1	8	30.2	3.0	4.0	26.2
Clinical chemistry.....	15	88.2	1	2	12	45.2	3.0	4.0	41.2
Hematology.....	17	100.0	1	2	14	46.2	2.7	4.0	42.2
Immunohematology.....	9	52.9	1	1	7	29.2	3.2	4.0	25.2
Tissue pathology.....	1	5.9	1	-	-	5.0	5.0	-	5.0
Exfoliative cytology.....	1	5.9	1	-	-	5.0	5.0	-	5.0
All procedures.....	1	5.9	1	-	-	5.0	5.0	-	5.0
SOUTH CAROLINA									
All laboratories.....	6	100.0	5	1	-	132.0	22.0	35.0	97.0
Microbiology.....	5	83.3	5	-	-	132.0	26.4	35.0	97.0
Serology.....	6	100.0	5	1	-	132.0	22.0	35.0	97.0
Clinical chemistry.....	6	100.0	5	1	-	132.0	22.0	35.0	97.0
Hematology.....	6	100.0	5	1	-	132.0	22.0	35.0	97.0
Immunohematology.....	5	83.3	5	-	-	132.0	26.4	35.0	97.0
Tissue pathology.....	5	83.3	5	-	-	132.0	26.4	35.0	97.0
Exfoliative cytology.....	5	83.3	5	-	-	132.0	26.4	35.0	97.0
All procedures.....	5	83.3	5	-	-	132.0	26.4	35.0	97.0

¹ Includes all technical personnel other than directors—expressed in full-time equivalents.

Table 3.3.2 NUMBER OF INDEPENDENT LABORATORIES, BY TYPE OF PROCEDURE APPROVED, TRAINING OF LABORATORY DIRECTOR AND TECHNICAL STAFF, REGION, DIVISION, AND STATE—Con.

[See NOTES preceding General Tables]

Region, division, State, and type of procedure	Total laboratories		Training of laboratory director			Technical staff			
	Number	Percent	Pathologist	Other physician	Non-physician	Total number ¹	Average per laboratory	Physician	Non-physician
SOUTH DAKOTA									
All laboratories	4	100.0	4	-	-	35.0	8.8	8.0	27.0
Microbiology	4	100.0	4	-	-	35.0	8.8	8.0	27.0
Serology	4	100.0	4	-	-	35.0	8.8	8.0	27.0
Clinical chemistry	4	100.0	4	-	-	35.0	8.8	8.0	27.0
Hematology	4	100.0	4	-	-	35.0	8.8	8.0	27.0
Immunohematology	4	100.0	4	-	-	35.0	8.8	8.0	27.0
Tissue pathology	4	100.0	4	-	-	35.0	8.8	8.0	27.0
Exfoliative cytology	4	100.0	4	-	-	35.0	8.8	8.0	27.0
All procedures	4	100.0	4	-	-	35.0	8.8	8.0	27.0
TENNESSEE									
All laboratories	27	100.0	12	4	11	135.5	5.0	17.0	118.5
Microbiology	18	66.7	8	1	9	93.5	5.2	12.0	81.5
Serology	21	77.8	9	1	11	100.5	4.8	12.0	88.5
Clinical chemistry	21	77.8	8	2	11	99.5	4.7	12.0	87.5
Hematology	22	81.5	9	2	11	100.5	4.6	12.0	88.5
Immunohematology	11	40.7	10	-	1	89.5	8.1	12.0	77.5
Tissue pathology	12	44.4	11	1	-	110.5	9.2	16.0	94.5
Exfoliative cytology	12	44.4	11	1	-	115.5	9.6	17.0	98.5
All procedures	8	29.6	8	-	-	83.5	10.4	12.0	71.5
TEXAS									
All laboratories	195	100.0	77	69	49	960.1	4.9	196.6	763.5
Microbiology	183	93.8	72	67	44	941.8	5.1	191.6	750.2
Serology	87	44.6	65	14	8	621.7	7.1	120.0	501.7
Clinical chemistry	188	96.4	72	68	48	944.8	5.0	189.6	755.2
Hematology	190	97.4	73	69	48	954.1	5.0	194.6	759.5
Immunohematology	119	61.0	70	41	8	764.6	6.4	150.6	614.0
Tissue pathology	74	37.9	68	4	2	562.4	7.6	113.0	449.4
Exfoliative cytology	77	39.5	69	6	2	572.5	7.4	116.6	455.9
All procedures	70	35.9	64	4	2	554.2	7.9	111.0	443.2
UTAH									
All laboratories	13	100.0	5	2	6	43.0	3.3	9.0	34.0
Microbiology	9	69.2	5	1	3	33.5	3.7	5.0	28.5
Serology	4	30.8	3	-	1	20.0	5.0	5.0	15.0
Clinical chemistry	9	69.2	5	1	3	33.5	3.7	5.0	28.5
Hematology	12	92.3	5	1	6	36.5	3.0	5.0	31.5
Immunohematology	8	61.5	5	-	3	30.5	3.8	5.0	25.5
Tissue pathology	3	23.1	3	-	-	19.0	6.3	5.0	14.0
Exfoliative cytology	4	30.8	3	1	-	25.5	6.4	9.0	16.5
All procedures	3	23.1	3	-	-	19.0	6.3	5.0	14.0
VERMONT									
All laboratories	4	100.0	-	2	2	8.0	2.0	3.0	5.0
Microbiology	2	50.0	-	1	1	7.0	3.5	3.0	4.0
Serology	1	25.0	-	-	1	1.0	1.0	-	1.0
Clinical chemistry	4	100.0	-	2	2	8.0	2.0	3.0	5.0
Hematology	4	100.0	-	2	2	8.0	2.0	3.0	5.0
Immunohematology	1	25.0	-	-	1	1.0	1.0	-	1.0
Tissue pathology	1	25.0	-	-	1	1.0	1.0	-	1.0
Exfoliative cytology	1	25.0	-	-	1	1.0	1.0	-	1.0
All procedures	1	25.0	-	-	1	1.0	1.0	-	1.0
VIRGINIA									
All laboratories	23	100.0	18	-	5	112.7	4.9	22.0	90.7
Microbiology	17	73.9	14	-	3	98.5	5.8	18.0	80.5
Serology	16	69.6	13	-	3	91.5	5.7	16.0	75.5
Clinical chemistry	19	82.6	14	-	5	103.5	5.4	18.0	85.5
Hematology	19	82.6	15	-	4	106.5	5.6	20.0	86.5
Immunohematology	18	78.3	14	-	4	101.5	5.6	18.0	83.5
Tissue pathology	13	56.5	11	-	2	75.5	5.8	12.5	63.0
Exfoliative cytology	18	78.3	16	-	2	99.2	5.5	19.5	79.7
All procedures	11	47.8	10	-	1	72.5	6.6	11.5	61.0
WASHINGTON									
All laboratories	65	100.0	38	12	15	277.0	4.3	30.0	247.0
Microbiology	56	86.2	33	10	13	232.0	4.1	28.0	204.0
Serology	48	73.8	32	5	11	219.5	4.6	20.0	199.5
Clinical chemistry	58	89.2	33	11	14	236.0	4.1	28.0	208.0
Hematology	62	95.4	36	11	15	267.0	4.3	28.0	239.0
Immunohematology	46	70.8	29	8	9	221.5	4.8	19.0	202.5
Tissue pathology	38	58.5	36	1	1	164.5	4.3	20.0	144.5
Exfoliative cytology	40	61.5	37	2	1	174.5	4.4	20.0	154.5
All procedures	30	46.2	28	1	1	143.5	4.8	16.0	127.5
WEST VIRGINIA									
All laboratories	8	100.0	1	3	4	15.2	1.9	2.3	12.9
Microbiology	7	87.5	1	2	4	14.2	2.0	2.3	11.9
Serology	4	50.0	1	2	1	8.7	2.2	0.3	8.4
Clinical chemistry	8	100.0	1	3	4	15.2	1.9	2.3	12.9
Hematology	8	100.0	1	3	4	15.2	1.9	2.3	12.9
Immunohematology	3	37.5	1	-	2	7.7	2.6	0.3	7.4
Tissue pathology	1	12.5	1	-	-	1.0	1.0	-	1.0
Exfoliative cytology	1	12.5	1	-	-	1.0	1.0	-	1.0
All procedures	1	12.5	1	-	-	1.0	1.0	-	1.0

¹ Includes all technical personnel other than directors—expressed in full-time equivalents.

Table 3.3.2 NUMBER OF INDEPENDENT LABORATORIES, BY TYPE OF PROCEDURE APPROVED, TRAINING OF LABORATORY DIRECTOR AND TECHNICAL STAFF, REGION, DIVISION, AND STATE—Con.

[See NOTES preceding General Tables]

Region, division, State, and type of procedure	Total laboratories		Training of laboratory director			Technical staff			
	Number	Percent	Pathologist	Other physician	Non-physician	Total number ¹	Average per laboratory	Physician	Non-physician
WISCONSIN									
All laboratories.....	18	100.0	14	1	3	160.0	8.9	40.0	120.0
Microbiology.....	10	55.6	9	-	1	108.5	10.9	26.0	82.5
Serology.....	12	66.7	11	1	-	139.0	11.6	32.0	107.0
Clinical chemistry.....	14	77.8	11	1	2	140.0	10.0	31.0	109.0
Hematology.....	15	83.3	11	1	3	141.0	9.4	31.0	110.0
Immunohematology.....	12	66.7	11	1	-	139.0	11.6	30.0	109.0
Tissue pathology.....	10	55.6	10	-	-	112.0	11.2	23.0	89.0
Exfoliative cytology.....	13	72.2	13	-	-	133.0	10.2	34.0	99.0
All procedures.....	7	38.9	7	-	-	89.5	12.8	16.0	73.5
WYOMING									
All laboratories.....	3	100.0	3	-	-	20.0	6.7	8.0	12.0
Microbiology.....	3	100.0	3	-	-	20.0	6.7	8.0	12.0
Serology.....	3	100.0	3	-	-	20.0	6.7	8.0	12.0
Clinical chemistry.....	3	100.0	3	-	-	20.0	6.7	8.0	12.0
Hematology.....	3	100.0	3	-	-	20.0	6.7	8.0	12.0
Immunohematology.....	3	100.0	3	-	-	20.0	6.7	8.0	12.0
Tissue pathology.....	3	100.0	3	-	-	20.0	6.7	8.0	12.0
Exfoliative cytology.....	3	100.0	3	-	-	20.0	6.7	8.0	12.0
All procedures.....	3	100.0	3	-	-	20.0	6.7	8.0	12.0
OUTLYING AREAS									
Guam									
All laboratories.....	-	-	-	-	-	-	-	-	-
Microbiology.....	-	-	-	-	-	-	-	-	-
Serology.....	-	-	-	-	-	-	-	-	-
Clinical chemistry.....	-	-	-	-	-	-	-	-	-
Hematology.....	-	-	-	-	-	-	-	-	-
Immunohematology.....	-	-	-	-	-	-	-	-	-
Tissue pathology.....	-	-	-	-	-	-	-	-	-
Exfoliative cytology.....	-	-	-	-	-	-	-	-	-
All procedures.....	-	-	-	-	-	-	-	-	-
Puerto Rico									
All laboratories.....	53	100.0	5	11	37	142.9	2.7	28.0	114.9
Microbiology.....	46	86.8	-	11	35	135.4	2.9	25.0	110.4
Serology.....	6	11.3	-	1	5	8.0	1.3	-	8.0
Clinical chemistry.....	48	90.6	-	11	37	135.4	2.8	25.0	110.4
Hematology.....	44	83.0	-	10	34	127.4	2.9	25.0	102.4
Immunohematology.....	4	7.5	-	4	-	23.0	5.8	6.0	17.0
Tissue pathology.....	5	9.4	5	-	-	7.5	1.5	3.0	4.5
Exfoliative cytology.....	6	11.3	5	-	1	14.5	2.4	6.0	8.5
All procedures.....	-	-	-	-	-	-	-	-	-
Virgin Islands									
All laboratories.....	1	100.0	1	-	-	2.0	2.0	1.0	1.0
Microbiology.....	1	100.0	1	-	-	2.0	2.0	1.0	1.0
Serology.....	1	100.0	1	-	-	2.0	2.0	1.0	1.0
Clinical chemistry.....	1	100.0	1	-	-	2.0	2.0	1.0	1.0
Hematology.....	1	100.0	1	-	-	2.0	2.0	1.0	1.0
Immunohematology.....	1	100.0	1	-	-	2.0	2.0	1.0	1.0
Tissue pathology.....	1	100.0	1	-	-	2.0	2.0	1.0	1.0
Exfoliative cytology.....	1	100.0	1	-	-	2.0	2.0	1.0	1.0
All procedures.....	1	100.0	1	-	-	2.0	2.0	1.0	1.0
Other Outlying Areas									
All laboratories.....	-	-	-	-	-	-	-	-	-
Microbiology.....	-	-	-	-	-	-	-	-	-
Serology.....	-	-	-	-	-	-	-	-	-
Clinical chemistry.....	-	-	-	-	-	-	-	-	-
Hematology.....	-	-	-	-	-	-	-	-	-
Immunohematology.....	-	-	-	-	-	-	-	-	-
Tissue pathology.....	-	-	-	-	-	-	-	-	-
Exfoliative cytology.....	-	-	-	-	-	-	-	-	-
All procedures.....	-	-	-	-	-	-	-	-	-

¹ Includes all technical personnel other than directors—expressed in full-time equivalents.

Other Data Sources On The Health Insurance For The Aged Program

The *Health Insurance Statistics* series is designed to present current, quick-release data from the Medicare program. Two report series are issued in this format:

The Health Insurance (HI) series has included 30 releases since 1967. Issues released prior to 1970 are out of print, but available in many libraries.

The Current Medicare Survey (CMS) series, based on data from the continuing Current Medicare Survey, has included 15 releases since 1967. These issues are available in most libraries.

Future releases in the HI and CMS series may be obtained upon request to the Publications Staff, Office of Research and Statistics, Social Security Administration, Room 3643, HEW North Building, 330 Independence Avenue, SW., Washington, D.C. 20201.

The *Social Security Bulletin*, published monthly, presents authoritative articles and analyses of medical care expenditures, prices, and utilization, as well as current operating statistics from the Medicare program. The *Annual Statistical Supplement* to the *Bulletin* includes summary data on trust funds, services, claims, enrollment, average charges, and participating providers of service under Medicare. The *Bulletin*, including the Supplement, is available in most libraries and by subscription at \$4 a year from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

The *Research and Statistics Note* series reports on-going research, preliminary findings, or provides addenda to material already published on the old-age, survivors, disability, and health insurance program. Designed to get information quickly into the hands of users, the series includes data on medical care prices, outlays, and expenditures. The series is available in many libraries. Future releases may be obtained upon request to the Publications Staff, Office of Research and Statistics, Social Security Administration, Room 3643, HEW North Building, 330 Independence Avenue, SW., Washington, D.C. 20201.

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